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# A study of the relationship between racial mix and academic progress, interracial friendships, and pupil and parent attitudes in the elementary school

Julius Walter Gunnarsen  
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A STUDY OF THE RELATIONSHIP BETWEEN RACIAL MIX AND ACADEMIC  
PROGRESS, INTERRACIAL FRIENDSHIPS, AND PUPIL AND  
PARENT ATTITUDES IN THE ELEMENTARY SCHOOL

---

A Dissertation  
Presented to  
The Faculty of the Graduate School  
University of the Pacific

---

In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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by  
Julius Walter Gunnarsen

May, 1976



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JWG

A STUDY OF THE RELATIONSHIP BETWEEN RACIAL MIX AND ACADEMIC  
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Abstract of Dissertation

THE PROBLEM: This study addressed the problem of what relationship exists between the racial mix of the elementary school, independent of social class mix, and the academic progress, interracial friendships, and attitudes toward school of educationally disadvantaged pupils. Also investigated was the problem of what relationship exists between the racial mix of the school, with social class mix controlled, and the parents' attitudes toward school.

THE PROCEDURE: One hundred seventy-six fourth and sixth grade pupils, classified as educationally disadvantaged under the terms of the Elementary and Secondary Education Act of 1965, Title I, were randomly selected from three schools in the Vallejo (California) City Unified School District to constitute the pupil sample. The schools, two of which were desegregated and practically identical in all relevant respects, were homogeneous in regard to the socioeconomic class span of their populations. Eighty-eight persons, the parents of alternate pupils, composed the parent sample. Academic progress was defined as the difference between the pupils' raw pre- and posttest scores on the arithmetic computation and reading subtests of the Metropolitan Achievement Tests. Analysis of the significance of the difference between the mean progress scores of the desegregated and segregated pupils and the various subgroups was by means of the Student's  $t$  test between independent means. Data concerning pupils' interracial friendships and the attitudes of pupils and parents toward school were collected by means of questionnaires administered in individual interviews by trained school aides of the same race as the respondent. The questionnaires had been developed by the investigator and his advisers over a period of years and were subjected to pilot test. The significance of the differences between the desegregated and segregated groups and the various subgroups was analyzed by use of the chi-square test.

FINDINGS: (1) There was no consistent significant difference between the academic progress in arithmetic and reading of the desegregated and segregated pupils; (2) Pupils

in the desegregated schools showed a significantly greater tendency to form interracial friendships than pupils in the segregated school did; (3) Both pupils and parents associated with the desegregated schools were significantly happier about their schools than their peers were about the segregated school.

RECOMMENDATIONS: (1) Future research should focus on the social-psychological concomitants of desegregation and endeavor to identify those elements which tend to assure progress from desegregation to integration; (2) The validity of desegregation as an educational policy objective should be judged by reference to its affective rather than its cognitive benefits; (3) Desegregation research should accord primary emphasis to investigating socioeconomic variables; (4) Research concerning the academic achievement of disadvantaged pupils should concentrate on the effects of socioeconomic balance, rather than on racial balance per se, since authorities agree that racial balance has minimal, if any, impact.

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## CHAPTER I

### THE PROBLEM AND DEFINITIONS OF TERMS USED

#### I. INTRODUCTION

Declaring "this finding is amply supported by modern authority,"<sup>1</sup> Chief Justice Earl Warren on May 17<sup>th</sup>, 1954, delivered the following opinion of the Supreme Court of the United States in the epochal case of Brown v. Board of Education:

We come then to the question presented: Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other 'tangible' factors may be equal, deprive the children of the minority group of equal educational opportunities? We believe that it does.<sup>2</sup>

But even now, more than twenty years and scores of social science studies later, authorities are hardly ready to

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<sup>1</sup>Earl Warren. "Brown v. Board of Education," in Hubert H. Humphrey, ed., School Desegregation: Documents and Commentaries. (New York: Thomas Y. Crowell Company, 1964), p. 28.

<sup>2</sup>Ibid., p. 27.

agree that there is "ample" unequivocal research evidence to support the Court's conclusion.<sup>3</sup> The present investigation is conceived as a further contribution to the evidence on the relationship between racial mix and equal educational opportunity in the public schools.

## II. THE PROBLEM

Statement of the Problem. The focus of this investigation is on the problem of what relationship, if any, exists between the racial mix of the school, with social class mix controlled, and disadvantaged elementary pupils' academic progress, interracial friendships, and attitudes toward school. Also of interest is the problem of what relationship, if any, exists between the racial mix of the school, with social class mix controlled, and the parents' attitudes toward school. Accordingly, this study will seek tentative answers to the following questions:

1. Do pupils who attend a racially desegregated but socioeconomically segregated elementary school make more

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<sup>3</sup>Nancy H. St. John. "Desegregation and Minority Group Performance," Review of Educational Research. 40 (February, 1970), pp. 111-133; David J. Armor. "The Evidence on Busing," The Public Interest. 28 (Summer, 1972), pp. 90-126; Thomas F. Pettigrew and others. "Busing: a Review of 'The Evidence'," The Public Interest. 30 (Winter, 1973), pp. 88-117.



academic progress, form more interracial friendships, and hold more favorable attitudes toward school than pupils who attend a racially and socioeconomically segregated elementary school?

2. Are the attitudes toward school of the parents of the racially desegregated but socioeconomically segregated children more favorable than those of the parents of the racially and socioeconomically segregated children?

3. How do the attitudes toward school of the two groups of pupils compare with those of the two groups of parents?

Rationale of the study. Polls tend to find a large percentage of Americans in favor of the principle of desegregation of the public schools,<sup>4</sup> but favorable sentiment plummets when the idea of busing to achieve desegregation is suggested.<sup>5</sup> For example, in August, 1973, the Gallup Poll presented the following question to white parents: "Would

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<sup>4</sup>Kenneth Carlson. "Equalizing Educational Opportunity," Review of Educational Research. 42 (Fall, 1972), pp. 468, 469.

<sup>5</sup>Thomas F. Pettigrew. Racially Separate Or Together? (New York: McGraw-Hill Book Company, 1971), pp. 215, 216.

you, yourself, have any objection to sending your children to a school where half of the children are Negroes?"

Seventy-three percent of the respondents said they would have no objection. But when they were asked whether they would approve busing from one school district to another to accomplish desegregation, 95% responded negatively.<sup>6</sup>

Since a disproportionate share of the minority population is lower or working class,<sup>7</sup> living in housing to which it tends to be confined by both racial and economic circumstances,<sup>8</sup> achieving racial and socioeconomic heterogeneity<sup>9</sup> in public schools has commonly required busing minority pupils to middle class white majority schools. In fact, Carlson has flatly declared

Integration means bussing. To endorse integration while rejecting bussing is to say that the

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<sup>6</sup>Meyer Weinberg. "Chronicle of Race and Schools, April---September, 1973," Integrated Education. 11 (July-October, 1973), p. 9.

<sup>7</sup>Pettigrew. Op. Cit., p. 62; Carlson. Op. Cit., p. 464.

<sup>8</sup>Robert L. Carter. "Toward Apartheid," Integrated Education. 8 (November-December, 1970), pp. 27-32.

<sup>9</sup>The research evidence supporting the assumption that socioeconomic as well as racial mix is required for successful desegregation is presented in Chapter II.

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goal is worthwhile but the only effective means is unacceptable . . . <sup>10</sup>

What the white majority seems to be saying is that desegregation is desirable provided it can be achieved without busing. It seemed appropriate, therefore, to investigate the effects of desegregation in neighborhood schools. But finding a desegregated neighborhood school is not easy; since neighborhoods tend to be segregated, so do their schools.<sup>11</sup> However, the Vallejo City Unified School District contains two racially desegregated but socioeconomically segregated schools and a third school which is both racially and socioeconomically segregated. These schools provide the setting for this study of the effects of racial mix upon socioeconomically disadvantaged blacks and whites.

Importance of the study. The significance of this research will be primarily theoretical rather than practical because the focus is on an anomaly---desegregated neighborhood schools. However, beyond their contribution to desegregation theory, the findings should be useful wherever

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<sup>10</sup>Carlson. Op. Cit., p. 468. <sup>11</sup>Carter. Op. Cit., pp. 27-32.

desegregated urban neighborhood schools exist in the United States.

Further, this study may be unique in two respects. First, it concerns schools which were desegregated without community conflict and without busing. When a criterion of racial balance was adopted in California,<sup>12</sup> these schools were found to be desegregated. Consequently, neither teachers nor pupils are conscious of being involved in a significant socioeducational experiment. Second, the investigation concentrates on the effects of racial mix with socioeconomic mix controlled as rigorously as may be possible under actual school district conditions.

### III. DEFINITIONS OF TERMS USED

The following terms are used in this study as they are defined below:

Academic Progress. A pupil's progress in reading or arithmetic, measured by the difference between his pre-test and posttest scores on standardized achievement tests.

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<sup>12</sup>Bureau of Intergroup Relations. California Laws and Policies Relating to Equal Opportunities in Education. (Sacramento: California State Department of Education, 1969), p. 3. See also the definition of "Segregation."

Attitude. "A relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner."<sup>13</sup>

Desegregation. A term often used interchangeably with integration. Desegregation is a prerequisite to integration, but it involves "only a specification of the racial mix of students---preferably, more than half white. It does not include any description of the quality of the inter-racial contact."<sup>14</sup>

Disadvantaged Pupil. A pupil who has been so classified by the school district on the basis of the criteria specified in Title I of ESEA.<sup>15</sup> Gordon has described the socially disadvantaged as those who have

. . . low economic status; low social status; low educational achievement; tenuous, poorly paid, or

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<sup>13</sup>Milton Rokeach. "The Nature of Attitudes," in David L. Sills, ed., International Encyclopedia of the Social Sciences. (New York: The Macmillan Company & The Free Press, 1968), Vol. 1, p. 450.

<sup>14</sup>Thomas F. Pettigrew. "Race and Equal Educational Opportunity," in Equal Educational Opportunity. (Cambridge, Massachusetts: Harvard University Press, 1969), p. 74.

<sup>15</sup>Guidelines: Special Programs for Educationally Deprived Children (Elementary and Secondary Education Act of 1965/Title I), OE-35079. (Washington: U. S. Government Printing Office, 1965), pp. 21-23. See also the definition "ESEA Title I."

no employment; minimal participation in community organizations; and limited ready potential for upward mobility . . . these people are the bearers of cultural attitudes which are often different from those dominant in the broader society. As a consequence, their children come to school disadvantaged to the degree that their culture has failed to provide them with the experiences 'normal' to the children the schools are accustomed to teaching.<sup>16</sup>

Equal Educational Opportunity. A phrase which means that the school attempts to offset disadvantages arising from environmental deprivation, that an effort is made to equalize the resources with which children compete in the middle class environment of the school. Though children cannot be made equal, the goal is to enable each child to develop his innate ability, unhampered by economic or cultural limitations.<sup>17</sup>

ESEA Title I. A portion of the Elementary and Secondary Education Act (ESEA) of 1965 which concerns aid to the "educationally deprived" or disadvantaged child. It provides for federal payments to school districts to enable them to conduct programs designed to compensate for the

---

<sup>16</sup>Edmund W. Gordon. "Disadvantaged Populations," IRCD Bulletin. 3 (September, 1967), p. 8.

<sup>17</sup>James S. Coleman. "Equality of Opportunity and Equality of Results," Harvard Educational Review. 43 (February, 1973), pp. 134-137.



deficiencies of these disadvantaged children. Hence, the term "compensatory education."<sup>18</sup> "ESEA Title I Pupils," then, are "educationally deprived" pupils in terms of ESEA Title I criteria.

Integration. A condition which ideally proceeds from desegregation, involving "in addition to racial mix a climate of interracial acceptance."<sup>19</sup> Cohen, Pettigrew, and Riley compare and contrast desegregation and integration as follows:

. . . A desegregated school includes both Negro and white children, but contact between races is minimal and tense; an integrated school also is interracial, but there is considerable cross-racial interaction and friendship.<sup>20</sup>

Deutsch has defined the objective of integration as

. . . to assist children in the realization of individual potential leading to the jumping of social class boundaries . . . to eliminate the largely

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<sup>18</sup> Guidelines: Special Programs for Educationally Deprived Children (Elementary and Secondary Education Act of 1965/Title I), OE-35079. (Washington: U. S. Government Printing Office, 1965), pp. 21-23.

<sup>19</sup> Pettigrew. "Race and Equal Educational Opportunity," p. 75.

<sup>20</sup> David K. Cohen, Thomas F. Pettigrew, and Robert T. Riley. "Race and the Outcomes of Schooling," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), p. 359.

ethnic basis of social-class membership and to create conditions in which basic ability will be the determinant of social mobility, and of individual self-realization.<sup>21</sup>

Neighborhood School. A neighborhood is a district populated by inhabitants who tend to be relatively homogeneous socioeconomically. A neighborhood school is an elementary school serving the children of the neighborhood. Walking distance is typically not more than three quarters of a mile. Enrollment is often not more than 400. The school is segregated socioeconomically and almost invariably racially. Indeed, to minorities it has come to symbolize segregation.<sup>22</sup>

Racial Mix. A phrase used by Pettigrew and others to refer to the distribution of the various racial groups in the school population.<sup>23</sup>

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<sup>21</sup>Martin Deutsch. "Dimensions of the School's Role in the Problems of Integration," in The Disadvantaged Child: Selected Papers of Martin Deutsch and Associates. (New York: Basic Books, Inc., 1967), p. 294.

<sup>22</sup>Allan Blackman. "Planning the Neighborhood School," in Meyer Weinberg, ed., Integrated Education. (Beverly Hills, California: The Glencoe Press, 1968), pp. 141-150.

<sup>23</sup>Pettigrew. "Race and Equal Educational Opportunity," pp. 74, 75; see also Nancy H. St. John. School Desegregation: Outcomes for Children. (New York: John Wiley & Sons, 1975), pp. vi, 2-5.



Segregation. A term which has been defined in California (as "imbalance") in the following words:

. . . a racial or ethnic imbalance is indicated in a school if the percentage of pupils of one or more racial or ethnic groups differs by more than 15 percentage points from that in all the schools of the district.<sup>24</sup>

Social Class Mix. A phrase adopted in this study as the social class equivalent of Pettigrew's "racial mix." To isolate the effects of "racial mix" schools were selected in which the social class level of the school population approximated as closely as possible that of the sample. The school district has accumulated demographic data concerning the patrons of these schools for many years and proposed the three schools chosen for this investigation as the most nearly socioeconomically homogeneous available, offering examples of desegregation and segregation. On the basis of social status characteristics such as occupation, source of income, housing, and residential area the patrons of the

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<sup>24</sup>Bureau of Intergroup Relations. California Laws and Policies Relating to Equal Opportunities in Education. (Sacramento: California State Department of Education, 1969), p. 3.

subject schools range overwhelmingly from---using Warner's terms---lower lower to lower middle class.<sup>25</sup>

#### IV. RESEARCH HYPOTHESES<sup>26</sup>

The assumption underlying this investigation was that the desegregated school environment, compared to that of the segregated school, would excel in stimulating academic progress, interracial friendship formation, and favorable attitudes toward school on the part of both the pupils and their parents. That assumption is reflected throughout the following nine hypotheses.

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<sup>25</sup>W. Lloyd Warner with Marchia Meeker and Kenneth Eells. Social Class in America: The Evaluation of Status. (New York: Harper Torchbooks, Harper & Row, Publishers, 1960), pp. 121-159; see also "The Sample" in Chapter III of this dissertation.

<sup>26</sup>The adjective "research" is taken from Van Dalen and applied to these directional hypotheses, reflecting the investigator's assumptions as to the probable relationship between the variables. These hypotheses are thus distinguished from those stated in Chapter III of this dissertation. The latter are called "statistical" because, since they state essentially that there is no relationship between the variables, they are directly subject to statistical test. See Deobald B. Van Dalen. Understanding Educational Research. (New York: McGraw-Hill, Inc., 1966), pp. 165, 166; see also Fred N. Kerlinger. Foundations of Behavioral Research. (New York: Holt, Rinehart and Winston, Inc., 1964), pp. 173-175.

1. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will be significantly greater than that of such pupils attending a racially and socioeconomically segregated school.

2. The academic progress of ESEA Title I fourth and sixth grade white pupils attending a racially desegregated but socioeconomically segregated school will be significantly greater than that of such pupils attending a racially and socioeconomically segregated school.

3. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will be significantly greater than that of corresponding white pupils attending a racially and socioeconomically segregated school.

4. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially and socioeconomically segregated school will be significantly less than that of corresponding white pupils attending the same school.

5. Both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will name other-racial-group pupils as friends significantly more frequently than

will corresponding pupils in a racially and socioeconomically segregated school.

6. Both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will exhibit friendship patterns conforming significantly more closely to the actual distribution of the various racial groups in the school population than will the friendship patterns of corresponding pupils in a racially and socioeconomically segregated school.

7. Attitudes toward school of both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will be significantly more favorable than those of such pupils attending a racially and socioeconomically segregated school.

8. Attitudes toward school of the parents of both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will be significantly more favorable than those of the parents of such pupils attending a racially and socioeconomically segregated school.

9. Attitudes toward school of the parents of both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically

segregated school will be significantly more congruent with those of their children than will those of such parents and children associated with a racially and socioeconomically segregated school.

## V. ORGANIZATION OF THE STUDY

This study of the relationship between racial mix and academic progress, interracial friendships, and pupil and parent attitudes in the elementary school is organized on the following basis:

Chapter I: Introduction, statement of the problem, definitions of the terms used, and hypotheses.

Chapter II: Review of selected literature related to the study.

Chapter III: Experimental design and procedures.

Chapter IV: Results of the study of the relationship between racial mix and academic progress, interracial friendships, and pupil and parent attitudes in the elementary school.

Chapter V: Discussion of the findings, summary, and recommendations.

## CHAPTER II

### REVIEW OF SELECTED LITERATURE

#### I. INTRODUCTION

As stated in the preceding chapter, the problem upon which this study is focused is the manner in which disadvantaged fourth and sixth grade black and white pupils' academic progress, interracial friendships, and attitudes toward school are affected by the racial mix of the school, independent of social class mix. Also of interest is the manner in which racial mix, independent of social class mix, affects the parents' attitudes toward school. This chapter reviews literature related to the problem under investigation and is organized around the topics: Racial Mix and Academic Progress, Racial Mix and Interracial Friendships, and Racial Mix and Pupil and Parent Attitudes Toward School. A Summary concludes the chapter.



## II. RACIAL MIX AND ACADEMIC PROGRESS

### Academic Progress of Black Pupils

The Coleman Report revealed that at every level<sup>1</sup> the average black pupil scores distinctly below the average white pupil on standardized tests of academic achievement. Moreover, the gap in performance widens as the two groups proceed through school.<sup>2</sup>

Coleman and his associates found that it is in the racial composition of their student bodies that the school environments of blacks and whites chiefly differ.<sup>3</sup>

. . . the average white elementary school child attends a school where 87 percent of his classmates are white. The average Negro attends a school where 16 percent of his classmates are white . . .<sup>4</sup>

Furthermore, the achievement of black and other minority pupils was discovered to be strongly affected by the racial composition of the student body.<sup>5</sup>

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<sup>1</sup>First, third, sixth, ninth, and twelfth grades.

<sup>2</sup>James S. Coleman and others. Equality of Educational Opportunity. I (Washington: U. S. Government Printing Office, 1966), pp. 20, 21.

<sup>3</sup>Ibid., p. 22. <sup>4</sup>Ibid., p. 183. <sup>5</sup>Ibid., p. 22.

The Coleman Survey analyzed the short-term effects of integration on black achievement at the sixth, ninth, and twelfth grade levels. The effects, though small, were positive.<sup>6</sup> Almost without exception, of all black pupils, those in schools where more than half of their classmates were white achieved the highest average scores.<sup>7</sup> But blacks in schools where only a few of their classmates were white scored below blacks in totally segregated schools.<sup>8</sup>

Apparently the positive effects of integration upon black achievement are cumulative. It was found that pupils whose integrated experience began in the early grades consistently scored higher than the other groups.<sup>9</sup>

The crucial significance of the characteristics of a pupil's fellow students is explained by Coleman and his associates in the following terms:

An important part of a child's school environment consists not of the physical facilities of the school, the curriculum, and the teachers, but of his fellow-students. A child's fellow-students provide challenges to achievement and distractions from achievement; they provide the opportunities to learn outside the classroom, through association and casual discussions . . . Where the schools are highly segregated, the characteristics of this

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<sup>6</sup>Ibid., p. 29. <sup>7</sup>Ibid. <sup>8</sup>Ibid. <sup>9</sup>Ibid.



student body are largely the same as those of the average minority group child himself---and it is this that constitutes one of the difficulties such a child faces in trying to participate in the larger society. It compounds such a child's problem by holding him in the environment of his origins, and keeping out of reach the environment of the larger society.<sup>10</sup>

The Coleman Report observed that "as the proportion white in a school increases, the achievement of students in each racial group increases."<sup>11</sup> The relationship was more pronounced with each grade increment beyond grade three.<sup>12</sup> The rationale for the relationship between proportion white and increase in pupil achievement is stated as follows:

. . . The higher achievement of all racial and ethnic groups in schools with greater proportions of white students is largely, perhaps wholly, related to effects associated with the student body's educational background and aspirations. This means that the apparent beneficial effect of a student body with a high proportion of white students comes not from racial composition per se, but from the better educational background and higher educational aspirations that are, on the average found among white students . . . <sup>13</sup>

From an analysis of Coleman Report data, the U. S. Commission on Civil Rights in its study Racial Isolation in the Public Schools presents the following summary of the

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<sup>10</sup>Ibid., p. 183. <sup>11</sup>Ibid., p. 307. <sup>12</sup>Ibid. <sup>13</sup>Ibid.

relationship between black achievement and the racial and social class composition of schools:

. . . when relatively disadvantaged Negro students are in class with a majority of similarly disadvantaged white students . . . , their performance is higher than when they are in a class with a majority of equally disadvantaged Negroes . . . When disadvantaged Negro students in school with more advantaged Negroes are considered . . . there also is a performance improvement. Yet only a small proportion of the Negro population is middle class, and disadvantaged Negroes generally must attend school with whites if they are to be in school with a majority of more advantaged students. The combined effects of social class integration and racial desegregation are substantial. When disadvantaged Negro students are in class with similarly situated whites . . . their average performance is improved by more than a full grade level. When they are in class with more advantaged white students . . . their performance is improved by more than two grade levels.<sup>14</sup>

Wilson conducted a study in Richmond, California, for the U. S. Commission on Civil Rights in connection with the Racial Isolation inquiry. Probing the relationship between a pupil's social class level and his academic achievement, Wilson found that "the racial composition of the elementary school does not have any independent effect, over and above the social class composition of the school,

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<sup>14</sup>U. S. Commission on Civil Rights. Racial Isolation in the Public Schools. I (Washington: U. S. Government Printing Office, 1967), p. 91.

upon achievement."<sup>15</sup> The effect of the social class composition of the school was found to be higher for blacks than for whites.<sup>16</sup> Wilson concludes:

Given similar social-class compositions, the racial balance of a school has slight bearing on the academic performance of students. (Social-class and racial compositions are, of course, closely correlated.)<sup>17</sup>

Referring to the Coleman Report and earlier corroborating studies, Pettigrew concedes:

The most significant school correlate of achievement test scores uncovered by the Coleman study is the social-class climate of the school's student body . . . Put bluntly, children of all backgrounds tend to do better in schools with a predominant middle-class milieu; and this trend is especially true in the later grades where the full force of influence of the peer group is felt.<sup>18</sup>

However, basing his assertion on data from the Coleman Survey reanalyzed by the U. S. Civil Rights Commission and presented in the Racial Isolation study, Pettigrew

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<sup>15</sup> Alan B. Wilson. "Educational Consequences of Segregation in a California Community," in U. S. Commission on Civil Rights, Racial Isolation in the Public Schools. II (Washington: U. S. Government Printing Office, 1967), p. 181.

<sup>16</sup> Ibid., p. 187.

<sup>17</sup> Ibid., p. 202.

<sup>18</sup> Thomas F. Pettigrew. Racially Separate Or Together? (New York: McGraw-Hill Book Company, 1971), p. 58.

insists that in addition to the social class correlate of black achievement there is an independent racial composition factor.<sup>19</sup> He states that on the average, with family social class and school social class controlled, black pupils in predominantly white classrooms score higher than those in segregated classrooms. However, black pupils in classrooms less than half white do no better than those in black segregated classrooms.<sup>20</sup>

In his Harvard faculty seminar paper reanalyzing Coleman Report data, Jencks probed the impact of the socioeconomic composition of the school upon black achievement, finding that:

. . . Poor black sixth graders in overwhelmingly middle-class schools were about 20 months ahead of poor black sixth graders in overwhelmingly lower-class schools. Poor students in schools of intermediate socioeconomic composition fell neatly in between . . .<sup>21</sup>

In a survey of 1600 adult blacks living in northern metropolitan areas, Crain investigated the effect of family

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<sup>19</sup>Ibid., p. 63.

<sup>20</sup>Ibid.

<sup>21</sup>Christopher S. Jencks. "The Coleman Report and the Conventional Wisdom," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), p. 87.

background on the academic achievement of blacks.<sup>22</sup> Some of his subjects had attended desegregated schools; the others had been educated in segregated schools. Crain declares, "Surprisingly, Negro students in integrated schools do not come from higher-status families than those in segregated schools."<sup>23</sup>

Armor concludes his contribution to the Harvard faculty seminar report with a statement on the crucial relationship between family background and the academic performance of black pupils.

. . . even those black students in integrated and higher socioeconomic environments still achieve at a lower level than whites. The most likely explanation for this is that their individual family background is still more disadvantaged than that of white students in the same environment. Thus, while integration may be an important factor for black achievement, blacks might still never attain full achievement equality until their individual family life style catches up to that of whites.<sup>24</sup>

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<sup>22</sup>Robert L. Crain. "School Integration and the Academic Achievement of Negroes," Sociology of Education. 44 (Winter, 1971), pp. 1-26.

<sup>23</sup>Ibid., p. 11.

<sup>24</sup>David J. Armor. "School and Family Effects on Black and White Achievement: A Reexamination of the USOE Data," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), p. 226.



Phillips and Bianchi studied the effects of desegregation upon the reading achievement of working class black pupils in grades two, four, and six at intervals of seven and twenty-four months after their desegregated experience began.<sup>25</sup> These pupils attended desegregated, socioeconomically homogeneous schools in a large metropolitan school district in the Southwest. After seven months the desegregated pupils showed greater gains than the segregated control pupils in reading comprehension and vocabulary. Twenty-four months after desegregation began, reading scores from comparable tests were available only for pupils who were originally in the fourth grade. The desegregated fourth grade pupils' overall gains exceeded those of their segregated peers, but the difference was not statistically significant at the .05 level of confidence.<sup>26</sup>

Crain found that adult blacks who had attended both integrated elementary and high schools scored higher on a test of verbal achievement than did those who had attended

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<sup>25</sup>Leonard W. Phillips and William B. Bianchi. "Desegregation, Reading Achievement, and Problem Behavior in Two Elementary Schools," Urban Education. 9 (January, 1975), pp. 325-339.

<sup>26</sup>Ibid., pp. 330-333.



segregated schools.<sup>27</sup> His data suggested that the percentage white in a school must be around 50 to assure a salutary effect upon the academic achievement of black pupils.<sup>28</sup>

On the question of black performance in schools of differing racial composition, Armor makes several observations. Looking at the Coleman Report data for the sixth grade, he notes that in general verbal achievement test scores decrease with an increase in percent black.<sup>29</sup> In predominantly white schools, black pupils on the average score more than one standard deviation below whites. But in schools where the proportion black exceeds about 65 percent, whites score below blacks.<sup>30</sup> Beyond about 65 percent black there is a slight tendency for blacks to score progressively higher than whites as black percentage approaches 100. In no case, though, does the average black pupil in a predominantly black school outscore the average black pupil in a school between 1 and 25 percent black.<sup>31</sup>

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<sup>27</sup>Crain. Op. Cit., pp. 8-10. <sup>28</sup>Ibid., p. 10.

<sup>29</sup>Armor. Op. Cit., p. 197. <sup>30</sup>Ibid.

<sup>31</sup>Ibid.

In a reexamination of the Coleman Report data, Cohen, Pettigrew, and Riley probed the effect of school racial composition on academic achievement.<sup>32</sup> They comment:

Our findings on the school racial composition issue . . . are mixed . . . When the issue is probed at grade 6, a small independent effect of schools' racial composition appeared, but its significance for educational policy seems slight . . . <sup>33</sup>

Reanalyzing Coleman Report data using a quasi-longitudinal design, Jencks and Brown discovered some relationships between black pupils' academic progress and student body percent white.<sup>34</sup> Blacks were found to have made more improvement between the first and sixth grades in schools which were 51-75 percent white. On the average, attending a predominantly white elementary school raised a black pupil's

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<sup>32</sup>David K. Cohen, Thomas F. Pettigrew, and Robert T. Riley. "Race and the Outcomes of Schooling," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), pp. 350-352.

<sup>33</sup>*Ibid.*, pp. 351, 352.

<sup>34</sup>Christopher S. Jencks and Marsha Brown. "The Effects of Desegregation on Student Achievement: Some New Evidence from the Equality of Educational Opportunity Survey," Sociology of Education. 48 (Winter, 1975), pp. 126-140.

test scores by .215 standard deviations.<sup>35</sup> Jencks and Brown conclude:

. . . If all blacks gained this much relative to white norms between first and sixth grades, the test score gap between blacks and whites would fall by 21 percent.<sup>36</sup>

Bowles and Levin have challenged the methodology of the Coleman Report.<sup>37</sup> They do not submit contrary findings but assert that the Report does not provide conclusive evidence that the influence of a pupil's peers on his achievement is the most important of all school influences.<sup>38</sup> They insist that the Report's findings do not clearly support the conclusion that black pupils achieve more in integrated than in segregated schools.<sup>39</sup>

In a reanalysis of the Coleman Report data, McPartland, one of Coleman's collaborators, stresses the neutralizing effect of ability grouping in the classroom:

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<sup>35</sup> Ibid., p. 136.

<sup>36</sup> Ibid., p. 137.

<sup>37</sup> Samuel Bowles and Henry M. Levin. "The Determinants of Scholastic Achievement---An Appraisal of Some Recent Evidence," The Journal of Human Resources. 3 (Winter, 1968), pp. 3-24.

<sup>38</sup> Ibid., pp. 17-21.

<sup>39</sup> Ibid., pp. 21-23.

. . . the effects on achievement occur on the classroom level rather than on the school level. Consequently, a Negro student who attends a desegregated school which organizes its classes on a segregated basis can not be expected to be achieving at a higher level than his counterpart in a segregated school . . . 40

In contrast to the position of McPartland, Jencks and his coresearchers studied the available evidence on the effects of streaming devices and concluded that:

. . . ability grouping sometimes helps disadvantaged students, sometimes hurts them, and sometimes has no effect . . . Nobody knows when tracking will produce one effect or another . . . we found that students who were in fast streams ended up about 2 points ahead of initially similar students assigned to slow streams. Like others before us, then, we concluded that elementary school tracking had little effect on cognitive inequality.<sup>41</sup>

Katz undertook to identify the factors in the desegregated school which motivate black pupils to academic achievement.<sup>42</sup> He found that black pupils who score well on

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<sup>40</sup>James McPartland. "Sifting Through the Data," The Center Forum. 3 (December 23, 1968), p. 12.

<sup>41</sup>Christopher Jencks and others. Inequality: A Re-assessment of the Effect of Family and Schooling in America. (New York: Basic Books, Inc., Publishers, 1972), p. 108.

<sup>42</sup>Irwin Katz. "Factors Influencing Negro Performance in the Desegregated School," in Martin Deutsch, Irwin Katz, and Arthur R. Jensen, eds., Social Class, Race, and Psychological Development. (New York: Holt, Rinehart and Winston, Inc., 1968), pp. 254-289.

achievement tests in desegregated schools where more than half of the student body is white differ from similar pupils in similarly desegregated schools who score poorly in that the former enjoy greater acceptance from whites and have more close friends among the majority group students. In other words, black pupils in schools which are not merely desegregated, but also integrated as defined earlier in this dissertation, are those whose scholarship is most enhanced by desegregation.<sup>43</sup>

Jencks and his associates at Harvard's Center for Educational Policy Research, after studying equality of educational opportunity data from many sources for three years, concluded that

. . . if desegregation continues over a fairly long period it usually raises black students' scores slightly. But the gains are usually small, and they depend on factors that nobody fully understands . . . There is little evidence that black test scores are any higher in schools where the whites are as poor as the blacks.<sup>44</sup>

In a recent summary of the findings of more than 120 studies of the outcomes of desegregation, St. John

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<sup>43</sup>Ibid., pp. 283, 284.

<sup>44</sup>Jencks and others. Inequality, pp. 100, 102.

declares concerning the academic achievement of black pupils:

As implemented to date, desegregation has not rapidly closed the black-white gap in academic achievement, though it has rarely lowered and sometimes raised the scores of black children. Improvement has been more often reported in the early grades, in arithmetic, and in schools over 50% white, but even here the gains have usually been mixed, intermittent, or insignificant.<sup>45</sup>

#### Academic Progress of White Pupils

As has already been noted, the U. S. Commission on Civil Rights Racial Isolation study stresses the importance of school social class as a determinant of academic performance. For disadvantaged white pupils as for their black peers, achievement is higher when the social class level of the school is higher.<sup>46</sup>

In his study of the educational consequences of segregation, Wilson found that the family status of white pupils made a substantial difference in their academic performance, whereas family status had a negligible effect upon

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<sup>45</sup>Nancy H. St. John. School Desegregation: Outcomes for Children. (New York: John Wiley & Sons, 1975), p. 119.

<sup>46</sup>U. S. Commission. Op. Cit., p. 84.



the achievement of blacks.<sup>47</sup> Wilson also found that though the social class composition of the elementary school had a pronounced effect upon white achievement, the racial composition of the school was nonsignificant for white pupils.<sup>48</sup>

McPartland assesses the effects of desegregation upon the academic progress of white pupils as follows:

. . . the achievement of a white student in a racially balanced school is no different on the average than (sic) the achievement of his counterpart in a segregated all-white school.<sup>49</sup>

The rationale for uniform performance by the white pupil is that he is supported and motivated in his academic endeavors by a positive family environment.<sup>50</sup> This is apparently true for the average middle class white pupil, but it is doubtful whether it describes the situation of the average disadvantaged white pupil.

A review of the research evidence on the outcomes of desegregation prepared in connection with hearings on the Equal Educational Opportunities Act of 1972 declares, "There is no evidence that desegregation reduces white achievement

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<sup>47</sup>Wilson. Op. Cit., p. 174. <sup>48</sup>Ibid., pp. 183, 184.

<sup>49</sup>McPartland. Op. Cit., p. 12. <sup>50</sup>Ibid.

as long as a half or more white situation exists."<sup>51</sup>

Introducing his remarks on the matter, Jencks avers, "The effects of desegregation on disadvantaged white students have not been widely studied."<sup>52</sup> After referring to the limited data, he concludes that ". . . poor white students benefit academically from desegregation at the elementary level but probably not at the secondary level."<sup>53</sup>

In his reanalysis of Coleman Report data for the Harvard faculty seminar, Armor found that whites are out-scored by blacks in schools where the proportion black is about 65 percent or higher.<sup>54</sup> As the proportion black approaches 100 percent, there is a slight tendency for white achievement to be further depressed.<sup>55</sup> Summing up his findings, Armor states:

. . . regardless of the exact causal relationships, blacks on the average are currently performing best

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<sup>51</sup>U. S. Congress, Senate, Committee on Labor and Public Welfare, Subcommittee on Education. To Further the Achievement of Equal Educational Opportunities, Hearing, 92nd Congress, 2nd Sess. (Washington: Government Printing Office, 1972), p. 295.

<sup>52</sup>Jencks. Inequality, p. 103. <sup>53</sup>Ibid.

<sup>54</sup>Armor. Op. Cit., p. 197. <sup>55</sup>Ibid.

in majority-white environments, and . . . whites are not performing substantially worse in moderately integrated environments than in all-white schools.<sup>56</sup>

Jencks and Brown in their recent reanalysis of Coleman survey data found that white sixth graders in 51-75 percent white schools performed as well academically as did such whites in 76-90 percent white schools.<sup>57</sup> "Whites, like blacks, improve most<sup>58</sup> in schools that are 51-75 percent white."<sup>59</sup>

After a comprehensive survey of the literature, St. John declared:

White achievement has been unaffected in schools that remained majority white but significantly lower in majority black schools.<sup>60</sup>

### III. RACIAL MIX AND INTERRACIAL FRIENDSHIPS

Thus far this review has concerned itself with findings related to the cognitive outcomes of racial desegregation in the public schools. But proponents of

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<sup>56</sup>Ibid. <sup>57</sup>Jencks and Brown. Op. Cit., p. 129.

<sup>58</sup>Relative to national norms, *ibid.*, p. 126.

<sup>59</sup>*Ibid.*, p. 136. <sup>60</sup>St. John. Op. Cit., p. 119.

desegregation cite affective outcomes as probably more significant than those relating to cognition.<sup>61</sup>

In a U. S. Civil Rights Commission hearing in Boston, psychiatrist Charles Pinderhughes aptly referred to the affective consequences of desegregation when he asserted that what

. . . the pupils are learning from one another is probably just as important as what they are learning from the teachers. This is what I refer to as the hidden curriculum. It involves such things as how to think about themselves, how to think about other people, and how to get along with them. It involves such things as values, codes, and styles of behavior . . . <sup>62</sup>

Early investigation of the harmful effects of segregation tended to concentrate on the affective consequences. Indeed, when Chief Justice Warren in the Brown decision declared that segregation of minority group children deprives them of equal educational opportunity, the authority upon which he based the conclusion was drawn from

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<sup>61</sup>Pettigrew. Op. Cit., p. 64.

<sup>62</sup>Quoted in U. S. Civil Rights. Op. Cit., I, p. 82.

studies of the adverse psychological effects of segregation.<sup>63</sup>

The consequences of segregation for both black and white pupils have been succinctly stated by Clark as follows:

Segregated schools perpetuate feelings of inferiority in Negro children and unrealistic feelings of superiority in white children. They debase and distort human beings. They impair the ability of children to profit from democratic education. Indeed, they make it practically impossible to educate children in the ideals of democracy. Before the schools of America can play an effective role in improving the level of our democracy---before they can prepare children for life in terms broader than mere academic subject matter---the system of segregated schools must be eliminated.<sup>64</sup>

As will be seen as this review continues, mere interracial contact does not assure among black and white pupils the dissolution of prejudice and the development of mutual acceptance and respect.<sup>65</sup> Allport has defined the

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<sup>63</sup>Earl Warren. "Brown v. Board of Education," in Hubert H. Humphrey, ed., School Desegregation: Documents and Commentaries. (New York: Thomas Y. Crowell Company, 1964), p. 28; Kenneth B. Clark. "Desegregation: An Appraisal of the Evidence," Journal of Social Issues. 9 (No. 4, 1953), pp. 1-76; Max Deutscher and Isidor Chein. "The Psychological Effects of Enforced Segregation: A Survey of Social Science Opinion," The Journal of Psychology. 26 (October, 1948), pp. 259-287; Kenneth B. Clark. Prejudice and Your Child. 2nd ed. (Boston: Beacon Press, 1963), pp. 85-94.

<sup>64</sup>Clark. Prejudice, p. 87.

<sup>65</sup>Martin L. Krovetz. "Desegregation or Integration: Which Is Our Goal?" Phi Delta Kappan. 54 (December, 1972), pp. 247-249.

psychological setting which must exist if these outcomes are to be realized.

Prejudice (unless deeply rooted in the character structure of the individual) may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom or local atmosphere), and if it is of a sort that leads to the perception of common interests and common humanity between members of the two groups.<sup>66</sup>

The U. S. Civil Rights Commission's Racial Isolation study revealed that attending desegregated schools leads both black and white pupils, through interracial friendships, to respect and accept each other without the barrier of prejudice.<sup>67</sup>

. . . school desegregation has its greatest impact upon student attitudes and preferences through the mediating influence of friendship with students of the other race. Negro and white students who attend school with each other, but have no friends of the other race, are less likely to prefer desegregated situations than students in desegregated schools who have such friends. Having attended schools with students of the other race contributes to preferences for desegregation. The effect is strongest for students who have had both experiences.<sup>68</sup>

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<sup>66</sup>Gordon W. Allport. The Nature of Prejudice. (Garden City, New York: Doubleday Anchor Books, 1958), p. 267.

<sup>67</sup>U. S. Commission. Op. Cit., I, p. 111.

<sup>68</sup>Ibid.



The Commission found that racial attitudes formed in desegregated public schools persisted into adult life.<sup>69</sup>

Among blacks in Oakland, California, who at the time of the study had recently graduated from high school, 89 percent of those who had attended desegregated schools, but only 72 percent of those who had attended segregated schools, had white friends. Graduates from desegregated schools were far more likely than those from segregated schools to declare that they would trust a white man as much as they would trust a black man. And black graduates of desegregated schooling were found to be more at ease with whites than were black graduates of segregated schooling.<sup>70</sup>

Black graduates from both desegregated and segregated schools favored school desegregation almost unanimously. But black graduates of desegregated schools had a greater interest in having their children attend desegregated schools. Seventy-six percent of the black graduates from desegregated schools, compared to only 52 percent of their peers with segregated backgrounds, said they would

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<sup>69</sup>Ibid., pp. 111, 112. <sup>70</sup>Ibid., p. 111.

be willing to send their children out of the neighborhood to attend an integrated school.<sup>71</sup> Blacks who had been educated in desegregated schools also evinced a stronger desire to reside in a desegregated neighborhood; the percentages were 70 to 50.

Desegregated education, the Commission found, affected racial attitudes of whites in much the same way as it was observed to affect the attitudes of blacks.<sup>72</sup> Whites who had attended desegregated schools showed

. . . greater willingness to reside in an interracial neighborhood, to have their children attend desegregated schools, and to have Negro friends . . . They more often favored fair employment laws and agreed that 'Negroes should have as good a chance as white people to get any kind of job.'<sup>73</sup>

Dwyer observed black-white pupil interaction in seven central Missouri school districts which had been desegregated for from one to two years.<sup>74</sup> Blacks composed 10 percent or less of the student body of each of the schools studied.

It was found that elementary pupils adapted more readily to the integration process than did secondary pupils.

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<sup>71</sup>Ibid.

<sup>72</sup>Ibid., p. 112.

<sup>73</sup>Ibid.

<sup>74</sup>Robert J. Dwyer. "A Report on Patterns of Interaction in Desegregated Schools," The Journal of Educational Psychology. 31 (February, 1958), pp. 253-256.

Informal, spontaneous interaction was characteristic of the elementary pupils' relationships, whereas interaction at the secondary level tended to reflect adult community mores and taboos. Informal interaction increased and discomfort and tension declined as integrated experience extended. Black pupils felt more comfortable, more a part of the group, and administrators, teachers, and both black and white pupils agreed that the environment felt "more natural" the second year.<sup>75</sup>

Yarrow and her associates observed the social relationships of approximately 1100 black and white children from 9 to 13 years of age who spent two weeks together at a summer camp.<sup>76</sup>

. . . Although at the end of camp the children still tend to prefer their white cabin mates as friends, there is a statistically significant drop in the extent to which they are the favored group . . .

Among the white children changes during the two weeks are not dramatic or completely consistent. The major shift is in their friendship assessments of their Negro peers. At the end of camp, in the

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<sup>75</sup>Ibid.

<sup>76</sup>Marian Radke Yarrow, John D. Campbell, and Leon J. Yarrow. "Acquisition of New Norms: A Study of Racial Desegregation," The Journal of Social Issues. 14 (No. 1, 1958), pp. 8-28.

eyes of the white children their Negro peers were significantly more desirable as friends than they had been earlier in the session. Indeed, at the end of the camp, white and Negro campers were about equally desired as friends by the white children.<sup>77</sup>

In another report on the camping experience, Yarrow and Yarrow state the crucial role of the adult counselor in determining the child's response to desegregation.<sup>78</sup>

The data point to the counselor as a pivotal figure in determining the success of desegregation . . . More than the formal leadership variables, his personal characteristics have a decisive influence.<sup>79</sup>

In a review of the literature relating to the development of intergroup attitudes, Proshansky suggests that

. . . equal-status contacts in the school setting cannot exist in limbo. Its efficacy in the development of favorable ethnic attitudes may depend on the directed attempts of teachers and administrators to foster an atmosphere in which genuine cooperative relations between members of different ethnic groups indeed occur . . . <sup>80</sup>

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<sup>77</sup> Ibid., p. 27.

<sup>78</sup> Leon J. Yarrow and Marian Radke Yarrow. "Leadership and Interpersonal Change," The Journal of Social Issues. 14 (No. 1, 1958), pp. 47-59.

<sup>79</sup> Ibid., pp. 58, 59.

<sup>80</sup> Harold M. Proshansky. "The Development of Intergroup Attitudes," in Lois Wladis Hoffman and Martin L. Hoffman, eds., Review of Child Development Research. II (New York: Russell Sage Foundation, 1966), p. 354.

Proshansky also notes the tendency of prejudice among American youth to increase with age and the tendency of children of all ethnic groups to prefer friends from their own group.<sup>81</sup>

Koslin and others analyzed relationships between classroom racial balance and the interracial attitudes of 225 third graders in five lower middle class schools.<sup>82</sup>

Pupils in balanced classrooms showed less tendency than those in unbalanced classrooms to choose classmates of their own race as playmates, but the difference was not statistically significant. Lower levels of racial tension were also noted in the balanced classrooms. Koslin and her coauthors assert, "We would hypothesize that balance, per se, has at least some independent effect on children's attitudes."<sup>83</sup>

Friendships among 1131 black and white pupils enrolled in grades seven and eight of a desegregated junior high school in Berkeley, California, were investigated by

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<sup>81</sup>Ibid., p. 327.

<sup>82</sup>Sandra Koslin and others. "Classroom Racial Balance and Students' Interracial Attitudes," Sociology of Education. 45 (Fall, 1972), pp. 386-407.

<sup>83</sup>Ibid., p. 405.

Sachdeva.<sup>84</sup> He found that pupils in this newly integrated school developed new interracial friendships without any decrease in friendships with pupils of their own race. Sachdeva states that the teachers and administrators of the school were "sold on the idea of school integration" and concedes that the attitude of these adults was probably reflected in the pupils. He concludes, "These findings suggest that personal contact has been effective in improving interracial attitudes."<sup>85</sup>

In another study in which his concern was with changes in interracial attitudes of all black and all white seventh and eighth grade pupils in two desegregated junior high schools in Berkeley, California, Sachdeva reached conclusions identical to those reported in the earlier investigation of friendships.<sup>86</sup>

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<sup>84</sup>Darshan Sachdeva. "Friendships Among Students in Desegregated Schools," California Journal of Educational Research. 23 (January, 1972), pp. 45-51.

<sup>85</sup>Ibid., p. 51.

<sup>86</sup>Darshan Sachdeva. "A Measurement of Changes in Interracial Student Attitudes in Desegregated Schools," The Journal of Educational Research. 66 (May-June, 1973), pp. 418-422.



Carithers reviewed the literature on the subject of "patterns and consequences of interracial association under different conditions of school integration" which accumulated during the period 1954-1970.<sup>87</sup> She assesses the literature as follows:

There is no general agreement about the effects of interracial contacts on attitude change. Some studies have found heightened tolerance; some heightened resistance; some no change. There seems to be, however, a general agreement that interracial contact per se will not bring about increased tolerance or acceptance.<sup>88</sup>

In a recent review of the relevant literature, St.

John concludes:

The immediate effect of desegregation on interracial attitudes is sometimes positive but often negative. Thus white racism is frequently aggravated by mixed schooling. Friendship is somewhat more likely to develop among younger children or those who have been long desegregated . . .<sup>89</sup>

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<sup>87</sup>Martha W. Carithers. "School Desegregation and Racial Cleavage, 1954-1970: A Review of the Literature," The Journal of Social Issues. 26 (No. 4, 1970), pp. 25-47.

<sup>88</sup>Ibid., p. 41.

<sup>89</sup>St. John. Op. Cit., pp. 119, 120.

#### IV. RACIAL MIX AND PUPIL AND PARENT ATTITUDES TOWARD SCHOOL

##### Pupil Attitudes

Though the attitudes of pupils toward school---toward the teacher, the principal, their classmates, and the physical and emotional environment---should be of great concern to educators, the research in this area has been scant.<sup>90</sup> This is especially true in regard to the attitudes of disadvantaged pupils toward school.<sup>91</sup>

Tenenbaum investigated the attitudes toward school expressed by 639 sixth and seventh grade pupils in three

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<sup>90</sup> Leslie F. Malpass. "Some Relationships Between Students' Perceptions of School and Their Achievement," The Journal of Educational Psychology. 44 (December, 1953), p. 475; Gayle F. Gregersen and Robert M. W. Travers. "A Study of the Child's Concept of the Teacher," The Journal of Educational Research. 61 (March, 1968), p. 324; Laura E. Berk, Marion H. Rose, and Diane Stewart. "Attitudes of English and American Children Toward Their School Experience," The Journal of Educational Psychology. 61 (February, 1970), p. 33; Oren Glick. "Sixth Graders' Attitudes Toward School and Interpersonal Conditions in the Classroom," The Journal of Experimental Education. 38 (Summer, 1970), p. 17.

<sup>91</sup> Judith W. Greenberg and others. "Attitudes of Children From a Deprived Environment Toward Achievement-Related Concepts," The Journal of Educational Research. 59 (October, 1965), p. 57; Carol Lefevre. "Inner-City School---As the Children See It," The Elementary School Journal. 67 (October, 1966), p. 8.

New York City elementary schools.<sup>92</sup> One of the schools was located in a "superior residential section," one in a middle class neighborhood, and another in a poor area.

Tenenbaum found that the pupils saw school as the avenue to vocational and social success. They tended, for the most part, to evaluate school in terms of long-term rewards. "School is not pleasurable for itself. It is important for its future promise."<sup>93</sup> Dislike of the teacher was the most frequently mentioned reason for not liking school, suggesting the vital role the teacher plays in determining the pupil's attitudes toward school.

Tenenbaum concluded:

The children's faith in the school and all that it represents is sometimes ludicrous. The child assumes that the school educates him, even if the evidence indicates that he has not gained any benefit from the kind of instruction which is generally expected of the school . . . This study suggests the possibility that the community and not the school creates attitudes concerning the school.<sup>94</sup>

In a subsequent report of his study Tenenbaum concentrated on the extent to which the pupils' attitudes

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<sup>92</sup>Samuel Tenenbaum. "Uncontrolled Expressions of Children's Attitudes Toward School," The Elementary School Journal. 40 (May, 1940), pp. 670-678.

<sup>93</sup>Ibid., p. 675.

<sup>94</sup>Ibid., p. 678.

correlated with intelligence, academic achievement, and conduct in school.<sup>95</sup> He found that 20 percent of the pupils, whether they needed the money or not, would prefer to work rather than go to school. The children expressed highly favorable attitudes toward their classmates, with only 7 to 8 percent expressing unfavorable attitudes.

Tenenbaum observes:

. . . Since the school is an institution in the community, assigned by the community to do a definite task, the child takes it for granted that the institution is doing the task . . . He may be very unhappy within its environs, but, nevertheless, he thinks that the institution is good and desirable and serves worthy ends. The school, it would seem, is a receiver of attitudes, not a creator of them. The child comes to school with preconceived notions of how to regard school and tries to get and thinks he gets from school what the community expects the school to give.<sup>96</sup>

Negative attitudes toward school and failure in school were not found to be correlated. The attitudes of poor students did not differ notably from those of pupils of high achievement.<sup>97</sup>

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<sup>95</sup> Samuel Tenenbaum. "Attitudes of Elementary School Children to School, Teachers and Classmates," Journal of Applied Psychology. 28 (April, 1944), pp. 134-141.

<sup>96</sup> Ibid., pp. 140, 141.

<sup>97</sup> Ibid., p. 140.

Malpass studied the feelings of 92 eighth graders toward school in general and toward teachers, classmates, discipline, and achievement in particular.<sup>98</sup> His sample included nearly the entire eighth grade population in an upper New York State community. Malpass sought to find out whether pupils' perceptions of school are related to their achievement in school, with mental ability held constant.

The findings were mixed. Pupils' perceptions of school seemed to be related to school achievement as measured by teachers' end-of-the-semester grades. But there seemed to be no relationship between pupils' perceptions of school and their performance on standardized achievement tests in arithmetic and reading.<sup>99</sup>

Jackson and Lahaderne studied the relationship between scholastic success and attitude toward school among 292 sixth grade predominantly white pupils in a school situated in a working class suburb.<sup>100</sup> Correlations between achievement, whether measured by teachers' grades or

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<sup>98</sup>Malpass. Op. Cit., pp. 475-482.

<sup>99</sup>Ibid., pp. 481, 482.

<sup>100</sup>Philip W. Jackson and Henriette M. Lahaderne. "Scholastic Success and Attitude Toward School in a Population of Sixth Graders," The Journal of Educational Psychology. 58 (February, 1967), pp. 15-18.

standardized test scores, and attitudes toward school were negligible.<sup>101</sup>

In a survey of the attitudes toward school of 878 high, middle, and low income group pupils from nine Indiana high schools, Coster found little difference among the three categories except in attitudes related to interpersonal relationships.<sup>102</sup> Low income pupils' perception of their teacher's personal interest in them was lowest of the three groups. Their general opinion of their school was also lower than that of either of the other groups. Finally, low income pupils were less satisfied with their social life at school, and they perceived their parents as less interested in their school work.<sup>103</sup>

Greenberg and her associates investigated the attitudes of 115 fourth grade black pupils from a severely deprived environment toward a number of concepts presumed to be important for school learning.<sup>104</sup> The relationship

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<sup>101</sup>Ibid., pp. 17, 18.

<sup>102</sup>John K. Coster. "Attitudes Toward School of High School Pupils From Three Income Levels," The Journal of Educational Psychology. 49 (April, 1958), pp. 61-66.

<sup>103</sup>Ibid., pp. 63-65.

<sup>104</sup>Greenberg and others. Op. Cit., pp. 57-62.



between attitudes and school achievement was also probed.

The attitudes of this group of disadvantaged black children were generally favorable, especially toward important authority figures such as the teacher.<sup>105</sup> Achievement was measured by standardized test scores rather than teachers' grades, and no significant relationship was shown between achievement defined by this criterion and attitudes toward school-related and authority concepts.<sup>106</sup>

Eighteen children, six each from kindergarten, second grade, and fifth grade of an all-black inner city school, were interviewed by Lefevre, who was a fifth grade student teacher in the school at the time of the study.<sup>107</sup> The pupils were asked to tell stories about four pictures of black children with facial expressions indicating anxiety, happiness, belligerency, or neutrality. The interviewer (Lefevre) pointed out that the facial expressions were occasioned by some school experience and invited the pupils to describe the probable experience.

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<sup>105</sup>Ibid., pp. 58, 61.      <sup>106</sup>Ibid., pp. 60, 61.

<sup>107</sup>Lefevre. Op. Cit., pp. 8-15.

Of the 18 children interviewed, only one gave "happy" responses to all four pictures.<sup>108</sup> Eight of the pupils gave unhappy responses to all four pictures. There was a tendency for threatening school experiences to be mentioned more frequently as the grade level of the child increased.<sup>109</sup>

The study suggests that these pupils associated chiefly anxiety-producing experiences with school. Also, the children see the teacher as closely associated with physical or psychological pain. "The most important theme throughout the interviews is punishment and disapproval for wrongdoing."<sup>110</sup>

Neale and Proshek sampled school-related attitudes of 350 pupils in the fourth, fifth, and sixth grades of two elementary schools in Minneapolis, Minnesota.<sup>111</sup> The target area school was a low socioeconomic class school, and the comparison school was middle class.

The investigators concluded that deprived children value school highly, despite the apparent fact that they

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<sup>108</sup>Ibid., p. 11.      <sup>109</sup>Ibid.      <sup>110</sup>Ibid., p. 15.

<sup>111</sup>Daniel C. Neale and John M. Proshek. "School-Related Attitudes of Culturally Disadvantaged Elementary School Children," The Journal of Educational Psychology. 58 (August, 1967), pp. 238, 244.

see it "as a place where unpleasant things occur."<sup>112</sup> Neale and Proshek noted that attitudes were "increasingly negative as grade in school increased "<sup>113</sup>

The question of whether there is a significant loss in positive attitudes of pupils toward school during the school year was investigated by Flanders, Morrison, and Brode.<sup>114</sup> The researchers state that ". . . positive perceptions of pupils toward their teacher and their class activities decrease sometime during the first 4 months of the school year."<sup>115</sup>

Berk, Rose, and Stewart administered attitude scales to 787 fourth and fifth grade students in five suburban school districts and in one city school.<sup>116</sup> Representatives of all socioeconomic classes were included in the sample. The data suggest that American pupils have a strongly positive attitude toward school, irrespective of variations

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<sup>112</sup>Ibid., p. 243.

<sup>113</sup>Ibid.

<sup>114</sup>Ned A. Flanders, Betty M. Morrison, and E. Leland Brode. "Changes in Pupil Attitudes During the School Year," The Journal of Educational Psychology. 50 (October, 1968), pp. 334-338.

<sup>115</sup>Ibid., p. 337.

<sup>116</sup>Berk, Rose, and Stewart. Op. Cit., pp. 33-40.

in ability and social class background.<sup>117</sup>

Evidences of school-related alienation were explored by McElhinney, Kunkel, and Lucas among more than 6,000 fourth, fifth, and sixth grade pupils enrolled in forty-two buildings in small-town districts in east central Indiana.<sup>118</sup> The pupils completed a 72-item questionnaire.

One student in six responded, "Everytime I try to improve my school work something or someone stops me." One in twenty declared, "I'm almost sure I don't have a chance to succeed when I grow up." One in nine confessed, "Nothing I do in school makes me proud."

Nearly one pupil in fourteen responded that the teacher understands children "Almost none of the time" or "Never." In the judgment of one child in ten when things go wrong in school, it's because the teacher is treating him unfairly.

More than half of the pupils responded either, "School has little relationship to life outside of school"

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<sup>117</sup> Ibid., p. 36.

<sup>118</sup> James H. McElhinney, Richard C. Kunkel, and Lawrence A. Lucas. "Evidences of School Related Alienation in Elementary School Pupils," Education. 90 (April-May, 1970), pp. 321-327.

or "Much of what I hear in school is contradictory to what I see and hear outside of school." One in twenty would like to be younger so he could escape the unpleasant happenings in school, and more than one in ten would like to be older as a means of escape.

One pupil in four indicated that his parents talked with him about his school work either "Once or twice a month" of "Never, or hardly ever." More than one in four declared, "I don't remember that my mother or father have visited school at any time during the past two years." Nearly one in seven agreed with the statement, "Adults very often do not do what they say they will do."<sup>119</sup>

Investigating the question of whether pupils' attitudes toward school are related to the extent of their friendship involvement in the classroom, Glick analyzed data from fourteen sixth grade classrooms in a Midwestern metropolitan school system.<sup>120</sup> He found that apparently "... the extent of friendship involvement in sixth grade classrooms is not related to school attitudes."<sup>121</sup>

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<sup>119</sup> Ibid., pp. 322-327.

<sup>120</sup> Glick. Op. Cit., pp. 17-22.

<sup>121</sup> Ibid., p. 22.

## Parent Attitudes

Cloward and Jones surveyed attitudes toward school among adults living in Manhattan's Lower East Side. Interviews were conducted with 988 respondents, residents almost exclusively of tenements or low-income public housing.<sup>122</sup>

The investigators found that lower class parents evaluated the schools more positively than middle class parents did. About half of the lower and working class parents, compared to only one out of three middle class parents, said the schools were doing an "excellent" or "good" job.<sup>123</sup>

In evaluating the schools, lower class parents were more likely to think of the teachers, whereas middle class parents more often thought of such things as overcrowding and rundown buildings. Middle class parents tended to evaluate teachers more negatively than did lower and working class parents.<sup>124</sup> The latter were far more inclined to feel that the teachers are really interested in their children.

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<sup>122</sup>Richard A. Cloward and James A. Jones. "Social Class: Educational Attitudes and Participation," in A. Harry Passow, ed., Education in Depressed Areas. (New York: Teachers College Press, 1963), pp. 190-216.

<sup>123</sup>Ibid., p. 205.

<sup>124</sup>Ibid., p. 206.



But ". . . lower-class respondents are more likely than those from the middle-class and the working-class to feel that the schools do not pay enough attention to kids from poor families."<sup>125</sup>

Cloward and Jones found that exposure through participation in PTA did not affect lower class parents' appraisals of the school, though it tended to make working class parents' assessments somewhat more negative.<sup>126</sup> Participation, however, tended to heighten the lower class view of the importance of education.<sup>127</sup> Noteworthy in this connection is Sexton's finding that lower income parents are ". . . least likely to join a school-parent group."<sup>128</sup>

That parents generally rate the public schools high is evidenced by the findings of the Sixth Annual Gallup Poll of Public Attitudes Toward Education.<sup>129</sup> Twenty-two percent gave the public schools a grade of A; 42 percent, B; 24

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<sup>125</sup>Ibid., p. 208.

<sup>126</sup>Ibid., p. 213.

<sup>127</sup>Ibid., p. 215.

<sup>128</sup>Patricia Cayo Sexton. Education and Income: Inequalities in Our Public Schools. (New York: The Viking Press, Inc., 1964), p. 108.

<sup>129</sup>George H. Gallup. "Sixth Annual Gallup Poll of Public Attitudes Toward Education," Phi Delta Kappan. 56 (September, 1974), pp. 20-32.

percent, C; 4 percent, D; 3 percent, F; and 5 percent, Don't know/no answer.<sup>130</sup>

### Pupils' and Parents' Attitudes Compared

Peterson compared the attitudes of pupils in grades 7 to 12 of two Indiana high schools toward political and social issues with those of their parents.<sup>131</sup> He found that ". . . all correlations between parents and children are positive and indicate that children's attitudes are much like parent's (sic) attitudes."<sup>132</sup> He concluded:

. . . Since sons and daughters are the most liberal of all the groups, with mothers second and fathers most conservative, it may be safe to conclude that mothers are more affected by the children's attitudes than are the children by the mothers'.<sup>133</sup>

In an investigation of attitude interrelationships of pupils, parents, and teachers, Remmers and Weltman polled a sample of 710 persons associated with high schools in 10

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<sup>130</sup>Ibid., p. 26.

<sup>131</sup>T. D. Peterson. "The Relationship Between Certain Attitudes of Parents and Children," in H. H. Remmers, ed., "Studies in Higher Education---Further Studies in Attitudes, Series II," Bulletin of Purdue University. 37 (December, 1936), pp. 127-144.

<sup>132</sup>Ibid., p. 143.

<sup>133</sup>Ibid., p. 144.

rural school communities in Indiana and Illinois.<sup>134</sup> The researchers declared:

It is obvious that there is a high degree of communality of attitudes between parents and children and that therefore the attitudes of parents . . . can be fairly accurately predicted from those of their children and vice versa . . . parents and their children are more similar in their attitudes than are teachers and their pupils.<sup>135</sup>

## V. SUMMARY

### Racial Mix and Academic Progress

Academic Progress of Black Pupils. A review of the research indicates that both the individual black pupil's family background and the socioeconomic class of his school affect his academic progress, and their effects are intertwined with the effects of the racial composition of his school. The independent effects of the school's racial composition seem to be small but not insignificant.

When disadvantaged black pupils attend school with a majority of equally disadvantaged white pupils, the black

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<sup>134</sup>H. H. Remmers and Naomi Weltman. "Attitude Inter-Relationships of Youth, Their Parents, and Their Teachers," The Journal of Social Psychology. 26 (August, 1947), pp. 61-68.

<sup>135</sup>Ibid., pp. 64, 65.

pupils do better than when they attend school with a majority of equally disadvantaged blacks. But when disadvantaged black pupils attend school with a majority of advantaged middle class whites, the black pupils' academic progress is greater than when they attend school with equally disadvantaged white pupils. The black pupils' achievement is highest in schools which are middle class and 51-75 percent white.

Black pupils do better academically in integrated schools than in schools which are merely desegregated. A school environment characterized by greater acceptance from whites and by interracial friendships enhances the academic achievement of black pupils.

Academic Progress of White Pupils. Studies of the outcomes of desegregation have concentrated on the behavior of disadvantaged black pupils. When white pupils are referred to, the reference is overwhelmingly to white middle class pupils. This is because the social class composition of the desegregated school has been shown to be closely associated with the performance of disadvantaged minority pupils, the clientele for whom desegregation has been undertaken. Consequently, the thrust of desegregation efforts has been to associate disadvantaged minority pupils with advantaged whites.

When disadvantaged white pupils have been mentioned, they have been described in much the same terms as disadvantaged black pupils, suggesting that their distinguishing characteristics are not functions of race but rather of social class.

When white pupils are in the majority, their academic progress is either the same or greater under desegregation than it is in all-white schools. But when the student body of a school approximates 65 percent black, there seems to be a tendency for white scholarship to decline and for the decline to deepen as the percent black rises.

#### Racial Mix and Interracial Friendships

The studies reviewed indicate that desegregation, mere mixing of races in the school, does not guarantee interracial association. Integration, however, does tend to cause members of each racial group to disregard color as a criterion in forming friendships. If administrators and teachers evince commitment to the principle of integration and do everything within their ability to create a supportive environment, cross-racial association in the desegregated school tends to be enhanced.

## Racial Mix and Pupil and Parent Attitudes Toward School

Pupil Attitudes Toward School. None of the studies presented in this review compared pupils' perceptions of desegregated schools with their perceptions of segregated schools. The reviewer could find no such research. But the studies described do provide some insight into the attitudes of disadvantaged pupils toward school generally.

Apparently, disadvantaged pupils regard school positively, not for the immediate pleasures and satisfactions it offers, but rather for the advantages successful completion of school is assumed to make available. Pupils' assessment of school seems to reflect that of their community, perhaps especially the view of their parents.

The data suggest strongly that attitudes toward school are not related to academic achievement. The attitudes of poor students do not differ significantly from those of students who get high grades. Furthermore, attitudes toward school seem to be unrelated to friendships with other pupils in school. Pupils tend to be happier with their school friends than they are with school itself, and pupils with the most friends do not tend to have the most positive attitudes toward school.



Positive attitudes toward school decline during the school year. In this connection, it is important to consider that the attitude data in this study were collected during May.

Parent Attitudes Toward School. Though research concerning the attitudes of pupils toward their schools is scant, that concerning parents' attitudes toward schools, along the dimensions adopted for this study, is rare indeed.

Apparently, parents of disadvantaged children cling tenaciously to positive attitudes toward the schools their children attend despite the trauma they probably experienced a generation earlier and the frustrations their offspring encounter now. They strongly hold the conviction that education is important and that the school is the place where it must be obtained, though they are ill-prepared to support the academic strivings of their progeny.

Pupils' and Parents' Attitudes Toward School Compared. What research evidence there is suggests that the attitudes of pupils correspond closely to those of their parents and vice versa.

## CHAPTER III

### THE SAMPLE, INSTRUMENTS, AND HYPOTHESES

#### I. INTRODUCTION

As was indicated in Chapter I, the purpose of this study is to examine the relationship, if any, between the racial mix---with the social class mix controlled---in three neighborhood elementary schools and the academic progress, interracial friendships, and attitudes toward school of fourth and sixth grade educationally disadvantaged pupils. Also of interest are the attitudes toward school of the pupils' parents.

This chapter will concern the procedure used to collect the data required to accomplish the purpose of the study. It will describe the pupil and parent samples, the instruments used to obtain the data, the method of administering the instruments, the research hypotheses, and the statistical procedures used in evaluating the data.

## II. THE SAMPLE

The desegregated pupils studied in this investigation included all of the educationally disadvantaged black and white children in the fourth and sixth grades of two desegregated Vallejo elementary schools, Lincoln and Farragut. The two schools are located in the same section of town; and in terms of physical features, facilities, personnel, and pupils are so nearly identical that, from the standpoint of the district administration, they may be considered one school.<sup>1</sup> They are so considered in this investigation.

The segregated pupils were drawn from the total disadvantaged pupil enrollment in grades four and six of Vallejo's black segregated Widenmann elementary school. The disadvantaged pupils for whom both pre- and posttest achievement test scores in arithmetic and reading existed were separated into the categories black and white and fourth and sixth grade, alphabetized, and assigned identifying numbers.

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<sup>1</sup>Interview with Dr. George B. Moore, Director, Compensatory and Early Childhood Education, Vallejo City Unified School District, June 25, 1975. Because the two desegregated schools were considered to be a single school, this dissertation refers repeatedly to "the desegregated school" and "the segregated school."

Then 100 pupils were selected for the study through use of a table of random numbers. These procedures resulted in a sample comprised of 76 pupils from the desegregated Farragut and Lincoln schools and 100 pupils from the segregated Widenmann school.

The parent sample was selected from the pupil sample by including the parent of alternate pupils. Thus, the total sample was comprised of 176 pupils (76 desegregated and 100 segregated) and 88 parents (38 desegregated and 50 segregated).

The ethnic composition of the two schools (the desegregated schools Lincoln and Farragut are considered as one) and the composition of the pupil and parent samples are detailed in the following four tables. In interpreting the tables, it should be borne in mind that the desegregated pupil population refers to the combined populations of the two practically identical desegregated schools, Farragut and Lincoln, and that the segregated population is that of the segregated Widenmann school.

TABLE III-1

RACIAL COMPOSITION OF THE PUPIL POPULATIONS IN THE COMBINED  
DESEGREGATED SCHOOLS (FARRAGUT AND LINCOLN) AND IN THE  
SEGREGATED SCHOOL (WIDENMANN)

School	Percent Black	Percent White	Percent Other <sup>a</sup>
Desegregated	31.4	54.1	14.5
Segregated	56.4	29.3	14.3

<sup>a</sup>American Indian, Oriental, Spanish Surname, Filipino  
and Other Minorities.

TABLE III-2

RACIAL AND GRADE LEVEL COMPOSITION OF THE DESEGREGATED  
AND SEGREGATED PUPIL SAMPLES

Grade	Desegregated N <sup>a</sup> = 76				Segregated N <sup>a</sup> = 100				Totals
	Black		White		Black		White		
	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	
4	16	9.1	22	12.5	24	13.6	28	15.9	90
6	20	11.4	18	10.2	31	17.6	17	9.7	86
Totals	36		40		55		45		176

<sup>a</sup>Number. For example, the sample consisted of 76 de-  
segregated pupils of whom 16 were black fourth graders and  
22 were white fourth graders. Fourth graders of all cate-  
gories totaled 90.

<sup>b</sup>Percentage of Total N (176). For example, 9.1% of the  
total sample was composed of fourth grade desegregated black  
pupils.

TABLE III-3

RACIAL AND GRADE LEVEL COMPOSITION OF THE DESEGREGATED  
AND SEGREGATED PARENT SAMPLES

Grade	Desegregated N <sup>a</sup> = 38				Segregated N <sup>a</sup> = 50				Totals
	Black		White		Black		White		
	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	
4	7	8.0	10	11.4	14	16.0	17	19.3	48
6	12	13.6	9	10.2	12	13.6	7	8.0	40
Totals	19		19		26		24		88

<sup>a</sup>Number. For example, the parent sample consisted of 38 parents of desegregated pupils and 50 parents of segregated pupils. Of the parents of segregated pupils, 7 were parents of white sixth graders.

<sup>b</sup>Percentage of Total N (88). For example, of the total parent sample, 13.6% were the parents of segregated sixth grade black pupils.



TABLE III-4

## DESEGREGATED AND SEGREGATED PARENT SAMPLES ANALYZED BY SEX

Racial Mix Status	Male		Female		Totals	
	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>	N <sup>a</sup>	% <sup>b</sup>
Desegregated	2	2.3	36	40.9	38	43.2
Segregated	5	5.7	45	51.1	50	56.8
Totals	7	8.0	81	92.0	88	100.0

<sup>a</sup>Number of cases. For example, in the parent sample two of the total of 38 parents of desegregated pupils were fathers; of the parents of segregated pupils, 45 were mothers. The total number of parents, desegregated and segregated, in the sample was 88.

<sup>b</sup>Percent of the total number (88) of parents. For example, male parents of desegregated pupils comprised 2.3% of the total sample of 88 parents. Mothers of desegregated pupils comprised 40.9% of the total parent sample. Parents of desegregated pupils comprised 43.2% of the total parent sample (88), and parents of segregated pupils comprised 56.8%.

The sample was selected by methods which assured that every member of the population had an equal chance of being included. In the case of the desegregated pupils this was achieved by selecting the entire fourth and sixth grade population of disadvantaged pupils. A table of random numbers was used in selecting subjects from the entire population of disadvantaged fourth and sixth grade pupils in the segregated

school. Consequently, the sample in this study is a random one.<sup>2</sup>

The fact that all pupils in the sample were officially classified as disadvantaged educationally as defined in Title I of the Elementary and Secondary Education Act<sup>3</sup> supports the assumption of socioeconomic homogeneity in the sample. It does not, however, assure the socioeconomic homogeneity of the schools involved in the study. On the basis of such criteria as payments of Aid to Families with Dependent Children (AFDC), housing and health statistics, test scores, mobility and attendance records, and the need for such services as free lunches, the district administration considers the socioeconomic class of the schools comparable.<sup>4</sup>

Though the census tracts do not coincide with the school attendance boundaries and the data the census reports

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<sup>2</sup>Gilbert Sax. Empirical Foundations of Educational Research. (Englewood Cliffs, New Jersey: Prentice-Hall, 1968), pp. 130-142.

<sup>3</sup>Guidelines: Special Programs for Educationally Deprived Children (Elementary and Secondary Education Act of 1965/Title I), OE-35079. (Washington: U. S. Government Printing Office, 1965), pp. 21-23.

<sup>4</sup>Interview with Dr. George B. Moore, Director, Compensatory and Early Childhood Education, Vallejo City Unified School District, June 25, 1975.

yield refer chiefly to the entire population of the tract rather than exclusively to parents of public elementary school pupils, this investigator made a study of pertinent data from the 1970 census. The data substantially support the assumption of virtual socioeconomic homogeneity made by the school district on the bases indicated above.<sup>5</sup>

The decision to make elementary pupils the focus of the investigation was based on the assumption that they would be more responsive to a desegregated environment than would high school students, that they are more malleable and ingenious.<sup>6</sup> Two grade levels a significant distance apart in time

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<sup>5</sup>U. S. Bureau of the Census, Census of Population and Housing: 1970. CENSUS TRACTS, Final Report, PHC (1)-223, Vallejo-Napa, California, SMSA. (Washington: U. S. Government Printing Office, 1972). The local data were compared with corresponding data from state and national sources as follows: U. S. Bureau of the Census, Census of Population: 1970. Detailed Characteristics - California. I and II (Washington: U. S. Government Printing Office, 1972), and U. S. Bureau of the Census, Census of Population: 1970. Detailed Characteristics - United States Summary, Final Report PC (1)-D1. (Washington: U. S. Government Printing Office, 1973). Also consulted were: U. S. Bureau of the Census, Statistical Abstract of the United States. 95<sup>th</sup> ed. (Washington: U. S. Government Printing Office, 1974), and Egon Ernest Bergel, Social Stratification. (New York: McGraw-Hill Book Company, Inc., 1962), pp. 266-277.

<sup>6</sup>Robert J. Dwyer. "A Report on Patterns of Integration in Desegregated Schools," Journal of Educational Sociology. 31 (February, 1958), pp. 253, 254.

were included on the assumption that the effects of desegregation or segregation are cumulative and can be measured by comparing pupils of an earlier grade with those of a later grade.<sup>7</sup> As a consequence of a pilot study, described later in this chapter, it was concluded that selection of the fourth and sixth grades would be optimal for this investigation.

### III. THE INSTRUMENTS

Data regarding academic progress in the areas of arithmetic and reading came from the standardized tests administered in October, 1971, and May, 1972, by the Vallejo City Unified School District as part of the ESEA Title I Evaluation Program.<sup>8</sup> Specifically, the data were derived from the pupils' performances on the arithmetic computation subtest and the reading subtest of the Metropolitan Achievement Tests.

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<sup>7</sup>James S. Coleman and others. Equality of Educational Opportunity. I (Washington: U. S. Government Printing Office, 1966), pp. 29, 331.

<sup>8</sup>The data are on file in the office of Dr. George B. Moore, Director, Compensatory and Early Childhood Education, Vallejo (California) City Unified School District.

The data concerning pupils' friendships and the attitudes of pupils and parents toward school were obtained from two questionnaires, the responses to which were provided in individual interviews. One questionnaire served for students, the other for parents. The pupil questionnaire is reproduced as Appendix B, and the parent questionnaire constitutes Appendix C.

The pupil questionnaire was designed to provide data regarding both pupil friendships and pupil attitudes toward school. However, since parents would be involved in the study only in regard to their attitudes toward their child's school, the parent questionnaire was derived only from the portion of the pupil questionnaire which concerns attitudes toward school. Care was taken to assure that the attitudes-toward-school items for parents were identical in content to those for the children, with only the necessary changes in form. The result may be noted by comparing the parent questionnaire with the attitudes-toward-school items from the pupil questionnaire.

The questionnaires evolved from the investigator's original concept over a period of at least two years as the result of numerous conferences with advisers and as the result of a pilot study conducted among elementary school



pupils from the Stockton (California) Unified School District who were attending summer school in June, 1971. The pilot study led to substantial revisions of the questionnaire, both in form and in content, as will be seen by consulting the pilot and final questionnaires in their respective appendices.<sup>9</sup> Another consequence of the pilot study was the conclusion that it would not be feasible to include pupils below fourth grade in the investigation. Further, it seemed that, even with older subjects, the questionnaire must be administered in a one-to-one private interview.

Early in the evolution of the questionnaire it was decided to include a number of items not directly related to the concerns of the present study. This was done with a view to obtaining clues for possible further study and also to make the specific research emphases of the instruments less obvious to the respondents.<sup>10</sup> Consequently, only those responses in the pupil questionnaire specifically intended to elicit information regarding friendship patterns or attitudes

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<sup>9</sup>The pilot questionnaire forms Appendix A.

<sup>10</sup>A. N. Oppenheim. Questionnaire Design and Attitude Measurement. (New York: Basic Books, Inc., Publishers, 1966), pp. 37-45.



toward school are reflected in this study. For analysis, the responses to individual friendship and attitudes-toward-school items were combined in single composite items.

As an internal consistency check, the items relating to attitudes toward school were designed so that in 12 cases a "Yes" answer would indicate a positive or favorable attitude toward school and in 11 cases would indicate a negative or unfavorable attitude.<sup>11</sup> In analyzing these data, responses to all of the individual attitudes-toward-school items were combined in one composite item, with "No" answers which were positive being combined with "Yes" answers which were negative. Similarly, "Yes" answers that were negative were combined with "No" answers that were negative. In the composite item the categories of response were "Positive," "Negative," and "Uncertain."

#### IV. ADMINISTRATION OF THE INSTRUMENTS

The achievement tests were administered in conformity with established procedures developed by the district research office. The investigator's involvement with these tests was

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<sup>11</sup>George R. Allen. The Graduate Students' Guide to Theses and Dissertations. (San Francisco: Jossey-Bass Publishers, 1974), p. 55.

limited to extracting the gain scores, the difference between the pre- and posttest scores.

The interviewers who obtained responses to the questionnaires in individual encounters with the pupil and parent respondents were recruited from the ESEA Title I school aides employed by the district. The interviewers were paid by the investigator at a rate per interview mutually agreed upon. They contacted pupils and parents associated with the school of their assignment; consequently, they were not strangers to the interviewees. Pupils were interviewed at school, parents at home. Black interviewers were chosen to interview black pupils and parents, and white aides interviewed white pupils and parents.

The aides were experienced interviewers, having participated in other research conducted in the district, and, in the effort to minimize interviewer effects on collection of the data, were given specific instructions. The interviews were conducted during the month of May, 1972.

## V. STATISTICAL PROCEDURES

Academic progress in arithmetic and reading was measured by subtracting a pupil's raw pretest score on the

appropriate Metropolitan Achievement Tests subtest from his raw posttest score to obtain the gain score.<sup>12</sup> After gain scores had been derived for all 176 pupils, means for each of the desegregated and segregated groups were computed and the  $t$  test between independent means was used to determine whether the means differed significantly.<sup>13</sup> This procedure was adopted for the following reasons: (1) The number of groups being compared in each case was two, the situation for which the  $t$  test is uniquely adapted; (2) The samples were randomly drawn from their respective populations; and (3) The assumptions of normality of distribution of scores and homogeneity of variance were justified by the circumstances and the latter was verified for each comparison, using the  $F$  ratio test described by Popham and Sirotnik.<sup>14</sup> The pooled variance formula, stated on the following page, was used

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<sup>12</sup>Lee J. Cronbach. Essentials of Psychological Testing. 3rd ed. (New York: Harper & Row, Publishers, 1970), p. 98.

<sup>13</sup>Deobald B. Van Dalen. Understanding Educational Research. (New York: McGraw-Hill Book Company, 1966), pp. 378-381.

<sup>14</sup>W. James Popham and Kenneth A. Sirotnik. Educational Statistics: Use and Interpretation. 2nd ed. (New York: Harper & Row, Publishers, 1973), pp. 140, 141.

because in each two-group comparison the  $n$ 's were unequal and the variances homogeneous practically without exception, the situation in which the pooled variance  $t$  model is uniquely appropriate.<sup>15</sup>

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\left( \frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2} \right) \left( \frac{1}{n_1} + \frac{1}{n_2} \right)}}$$

Pooled Variance  $t$  Model

The friendship and attitudes-toward-school data were collected in the form of frequencies in discrete categories; for example, Yes - 75; No - 57; Uncertain - 18. This is a situation in which Siegel states that the chi-square test, in the present investigation for two independent groups, is appropriate.<sup>16</sup> Siegel describes the condition as follows:

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<sup>15</sup>Ibid., pp. 141, 142. In the few instances in which the variance was found not to be homogeneous, it was also found that calculation of the  $t$  value by the separate variance formula brought a result only minutely different from that obtained by using the pooled variance formula. Consequently, the more powerful pooled variance model was used exclusively.

<sup>16</sup>Sidney Siegel. Nonparametric Statistics. (New York: McGraw-Hill Book Company, Inc., 1956), p. 104.

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The hypothesis under test is usually that the two groups differ with respect to some characteristic and therefore with respect to the relative frequency with which group members fall in several categories. To test this hypothesis, we count the number of cases from each group which fall in the various categories, and compare the proportion of cases from one group in the various categories with the proportion of cases from the other group.<sup>17</sup>

Since the character of the data and the form of the hypotheses in this study accord with Siegel's description, the chi-square test for two independent samples was the test chosen for analysis of the friendship and attitudes-toward-school data.

Hypothesis 6 reflects the fact that in analysis of the friendship data it is necessary to account for the difference in opportunity to form interracial friendships in the two classes of schools. For example, if it were found by the usual chi-square procedure that black pupils in the desegregated school formed a significantly higher percentage of friendships with white pupils than did black pupils in the black segregated school, this would not necessarily be a significant finding. The reason is that the statistical procedure assumes equal opportunity to make such friendships in

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<sup>17</sup>Ibid.

the two settings. However, in the desegregated school more whites are available as friends for black pupils than is the case in the black segregated school. Differential availability of pupils of the various ethnic groups must, therefore, be taken into account in the statistical procedures used. Consequently, in testing Hypothesis 6, the actual distribution of the various ethnic groups in each school setting<sup>18</sup> was used to determine the expected frequencies for the chi-square tests.<sup>19</sup>

The position taken in this study is that any result which might have occurred by chance more than five times out of 100 is not to be regarded as significant. In other words, the minimum level of significance adopted is .05. When the results could occur by chance less frequently, for example, one time out of a hundred or one time in a thousand, this will be cited. This position in regard to the level of significance is in line with the view of Kerlinger.<sup>20</sup>

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<sup>18</sup>See Table III-1.

<sup>19</sup>Popham and Sirotnik. *Op. Cit.*, p. 274. This is the chi-square "goodness of fit" test.

<sup>20</sup>Fred N. Kerlinger. Foundations of Behavioral Research. (New York: Holt, Rinehart and Winston, Inc., 1964), pp. 154, 155.



## VI. STATISTICAL HYPOTHESES<sup>21</sup>

### Primary Hypotheses

1. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2. The academic progress of ESEA Title I fourth and sixth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

3. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

4. The academic progress of ESEA Title I fourth and sixth grade black pupils attending a racially and

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<sup>21</sup>For the rationale underlying the choice of "statistical" to describe these hypotheses, please see the footnote at the bottom of page 12.

socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

5. Black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will name other-racial-group pupils as friends no more frequently than will corresponding pupils in a racially and socioeconomically segregated school.

6. Both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will exhibit friendship patterns conforming no more closely to the actual distribution of the various racial groups in the school population than will the friendship patterns of corresponding pupils in a racially and socioeconomically segregated school.

7. Attitudes toward school of both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of such pupils attending a racially and socioeconomically segregated school.

8. Attitudes toward school of the parents of both black and white ESEA Title I fourth and sixth grade pupils

attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of the parents of such pupils attending a racially and socioeconomically segregated school.

9. Attitudes toward school of parents of both black and white ESEA Title I fourth and sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not be significantly more congruent with those of their children than will those of such parents and children associated with a racially and socioeconomically segregated school.

#### Secondary Hypotheses

1a. The academic progress in arithmetic of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

1b. The academic progress in reading of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

1c. The academic progress in arithmetic of ESEA Title I fourth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

1d. The academic progress in arithmetic of ESEA Title I sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

1e. The academic progress in arithmetic of ESEA Title I fourth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade black pupils attending the same school.

1f. The academic progress in arithmetic of ESEA Title I fourth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade black pupils attending the same school.

1g. The academic progress in reading of ESEA Title I fourth grade black pupils attending a racially

desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

lh. The academic progress in reading of ESEA Title I sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

li. The academic progress in reading of ESEA Title I fourth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade black pupils attending the same school.

lj. The academic progress in reading of ESEA Title I fourth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade black pupils attending the same school.

2a. The academic progress in arithmetic of ESEA Title I white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2b. The academic progress in reading of ESEA Title I white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2c. The academic progress in arithmetic of ESEA Title I fourth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2d. The academic progress in arithmetic of ESEA Title I sixth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2e. The academic progress in arithmetic of ESEA Title I fourth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade white pupils attending the same school.

2f. The academic progress in arithmetic of ESEA Title I fourth grade white pupils attending a racially and socioeconomically segregated school will not differ



significantly from that of ESEA Title I sixth grade white pupils attending the same school.

2g. The academic progress in reading of ESEA Title I fourth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2h. The academic progress in reading of ESEA Title I sixth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of such pupils attending a racially and socioeconomically segregated school.

2i. The academic progress in reading of ESEA Title I fourth grade white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade white pupils attending the same school.

2j. The academic progress in reading of ESEA Title I fourth grade white pupils attending a racially and socioeconomically segregated school will not differ significantly from that of ESEA Title I sixth grade white pupils attending the same school.

3a. The academic progress in arithmetic of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

3b. The academic progress in reading of ESEA Title I fourth and sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

3c. The academic progress in arithmetic of ESEA Title I fourth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

3d. The academic progress in arithmetic of ESEA Title I sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

3e. The academic progress in reading of ESEA Title I fourth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ

significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

3f. The academic progress in reading of ESEA Title I sixth grade black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending a racially and socioeconomically segregated school.

4a. The academic progress in arithmetic of ESEA Title I fourth and sixth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

4b. The academic progress in reading of ESEA Title I fourth and sixth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

4c. The academic progress in arithmetic of ESEA Title I fourth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

4d. The academic progress in arithmetic of ESEA Title I sixth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

4e. The academic progress in reading of ESEA Title I fourth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

4f. The academic progress in reading of ESEA Title I sixth grade black pupils attending a racially and socioeconomically segregated school will not differ significantly from that of corresponding white pupils attending the same school.

5a. The friendship choices of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding black pupils attending a racially and socioeconomically segregated school.

5b. The friendship choices of ESEA Title I white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those

of corresponding white pupils attending a racially and socioeconomically segregated school.

5c. The friendship choices of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding white pupils attending the same school.

5d. The friendship choices of ESEA Title I black pupils attending a racially and socioeconomically segregated school will not differ significantly from those of corresponding white pupils attending the same school.

5e. The friendship choices of ESEA Title I black and white fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding sixth grade pupils attending the same school.

5f. The friendship choices of ESEA Title I black and white fourth grade pupils attending a racially and socioeconomically segregated school will not differ significantly from those of corresponding sixth grade pupils attending the same school.

5g. The friendship choices of ESEA Title I black and white fourth grade pupils attending a racially desegregated



but socioeconomically segregated school will not differ significantly from those of corresponding pupils attending a racially and socioeconomically segregated school.

5h. The friendship choices of ESEA Title I black and white sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding pupils attending a racially and socioeconomically segregated school.

6a. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6b. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I white pupils attending a racially desegregated but socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6c. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I black pupils attending a racially and socioeconomically segregated school and the percentage of pupils in each racial category in that school.



6d. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I white pupils attending a racially and socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6e. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I fourth grade pupils attending a racially desegregated but socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6f. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I sixth grade pupils attending a racially desegregated but socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6g. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I fourth grade pupils attending a racially and socioeconomically segregated school and the percentage of pupils in each racial category in that school.

6h. There will be no significant difference between the percentage of friends chosen in each racial category by ESEA Title I sixth grade pupils attending a racially and

socioeconomically segregated school and the percentage of pupils in each racial category in that school.

7a. Attitudes toward school of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding black pupils attending a racially and socioeconomically segregated school.

7b. Attitudes toward school of ESEA Title I white pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding white pupils attending a racially and socioeconomically segregated school.

7c. Attitudes toward school of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding white pupils attending the same school.

7d. Attitudes toward school of ESEA Title I black pupils attending a racially and socioeconomically segregated school will not differ significantly from those of corresponding white pupils attending the same school.

7e. Attitudes toward school of ESEA Title I black and white fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ

significantly from those of corresponding pupils attending a racially and socioeconomically segregated school.

7f. Attitudes toward school of ESEA Title I black and white sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding pupils attending a racially and socioeconomically segregated school.

7g. Attitudes toward school of ESEA Title I black and white fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of corresponding sixth grade pupils attending the same school.

7h. Attitudes toward school of ESEA Title I black and white fourth grade pupils attending a racially and socioeconomically segregated school will not differ significantly from those of corresponding sixth grade pupils attending the same school.

8a. Attitudes toward school of black parents whose ESEA Title I children attend a school which is racially desegregated but socioeconomically segregated will not differ significantly from those of corresponding black parents whose ESEA Title I children attend a racially and socioeconomically segregated school.

8b. Attitudes toward school of white parents whose ESEA Title I children attend a school which is racially desegregated but socioeconomically segregated will not differ significantly from those of corresponding white parents whose ESEA Title I children attend a racially and socioeconomically segregated school.

8c. Attitudes toward school of black parents whose ESEA Title I children attend a school which is racially desegregated but socioeconomically segregated will not differ significantly from those of corresponding white parents whose ESEA Title I children attend the same school.

8d. Attitudes toward school of black parents whose ESEA Title I children attend a school which is racially and socioeconomically segregated will not differ significantly from those of corresponding white parents whose ESEA Title I children attend the same school.

8e. Attitudes toward school of the parents of ESEA Title I fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of parents of ESEA Title I fourth grade pupils attending a school which is racially and socioeconomically segregated.

8f. Attitudes toward school of the parents of ESEA Title I sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of parents of ESEA Title I sixth grade pupils attending a school which is racially and socioeconomically segregated.

8g. Attitudes toward school of the parents of ESEA Title I fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of parents of ESEA Title I sixth grade pupils who attend the same school.

8h. Attitudes toward school of the parents of ESEA Title I fourth grade pupils attending a racially and socioeconomically segregated school will not differ significantly from those of parents of ESEA Title I sixth grade pupils who attend the same school.

9a. Attitudes toward school of ESEA Title I black pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of their parents.

9b. Attitudes toward school of ESEA Title I white pupils attending a racially desegregated but socioeconomically

segregated school will not differ significantly from those of their parents.

9c. Attitudes toward school of ESEA Title I black pupils attending a racially and socioeconomically segregated school will not differ significantly from those of their parents.

9d. Attitudes toward school of ESEA Title I white pupils attending a racially and socioeconomically segregated school will not differ significantly from those of their parents.

9e. Attitudes toward school of ESEA Title I fourth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of their parents.

9f. Attitudes toward school of ESEA Title I sixth grade pupils attending a racially desegregated but socioeconomically segregated school will not differ significantly from those of their parents.

9g. Attitudes toward school of ESEA Title I fourth grade pupils attending a racially and socioeconomically segregated school will not differ significantly from those of their parents.



9h. Attitudes toward school of ESEA Title I sixth grade pupils attending a racially and socioeconomically segregated school will not differ significantly from those of their parents.

## CHAPTER IV

### RESULTS OF THE STUDY OF THE RELATIONSHIP BETWEEN RACIAL MIX AND ACADEMIC PROGRESS, INTERRACIAL FRIENDSHIPS, AND ATTITUDES IN THE ELEMENTARY SCHOOL

#### I. INTRODUCTION

This investigation is centered around the problem of what relationship, if any, exists between the racial mix of the school, independent of social class mix, and the academic progress, interracial friendships, and attitudes toward school of disadvantaged elementary pupils. Another facet of the problem is the relationship, if any, between the racial mix of the school, independent of social class mix, and the attitudes toward school of the pupils' parents.

The findings of this investigation are presented in this chapter in terms of the three broad divisions of the study: Academic Progress, Interracial Friendships, and Attitudes Toward School. Findings in each of the three broad

categories are organized under subheadings corresponding to each of the nine primary statistical hypotheses. The final subdivision of the findings is in terms of the 72 secondary statistical hypotheses. Since the hypotheses under review are the statistical or null hypotheses, stating that there is no relationship between the variables, acceptance means that no significant difference between the variables was found; rejection means that a significant difference was found.

## II. ACADEMIC PROGRESS

As was explained in Chapter III, the measure of academic progress chosen for this investigation was that reflected by the raw gain scores of the pupils on the arithmetic computation and reading subtests of the Metropolitan Achievement Tests. These standardized tests were administered by personnel of the Vallejo City Unified School District in October, 1971, and May, 1972, as part of the ongoing ESEA Title I evaluation program. The gain scores provide the basis for tests of the first four primary statistical hypotheses, all concerning the pupils' academic progress and represented by 32 secondary statistical hypotheses.

### Academic Progress of Black Pupils

The primary statistical hypothesis of no significant difference between the academic progress of the desegregated black pupils and that of the segregated black pupils is rejected for arithmetic but accepted for reading. There was a difference significant beyond the .02 level between the arithmetic progress of the desegregated black pupils and that of their segregated peers, favorable to the latter. This finding is discussed in the following chapter. The slight difference in reading progress, favorable to the desegregated pupils, was nonsignificant. These findings are presented in Table IV-1A.

It is evident from a consideration of the findings for secondary statistical hypotheses 1c and 1d below that the significant difference between the two groups in arithmetic progress is concentrated at the fourth grade level. For sixth graders, there is no significant difference between the two groups of black pupils in arithmetic progress.

Arithmetic. Black pupils in the segregated school made significantly more progress in arithmetic (Table IV-1A) than black pupils in the desegregated school did. Consequently, Hypothesis 1a is rejected.

Reading. The difference between the academic progress in reading of black pupils in the desegregated school and their peers in the segregated school (Table IV-1A) was not significant. Consequently, Hypothesis 1b is accepted.

Arithmetic - Desegregated and Segregated Fourth Graders. The difference in academic progress in arithmetic between fourth grade black pupils in the desegregated school and their peers in the segregated school (Table IV-1B) favored the latter and was significant beyond the .001 level. Consequently, Hypothesis 1c is rejected.

Arithmetic - Desegregated and Segregated Sixth Graders. In contrast, the difference between the two groups on the sixth grade level (Table IV-1B) fell far short of significance. Consequently, Hypothesis 1d is accepted. It seems clear that the difference noted between all desegregated and all segregated black pupils ( $H_{1a}$ ) is attributable to the difference between these pupils at the fourth grade level only.

Arithmetic - Desegregated Fourth and Sixth Graders. Though in the desegregated school black fourth graders made more progress in arithmetic than sixth graders did (Table IV-1C), the difference fell short of significance. Consequently, Hypothesis 1e is accepted.

Arithmetic - Segregated Fourth and Sixth Graders.

In the segregated school, however, the situation was very different (Table IV-1C). There the fourth grade black pupils surpassed their sixth grade counterparts by a difference which was significant beyond the .001 level. Consequently, Hypothesis 1f is rejected.

Reading - Desegregated and Segregated Fourth Graders.

Pursuing the differences in academic progress in reading (Table IV-1D) reveals that fourth grade black pupils in the desegregated school surpassed their peers in the segregated school but that the difference fell short of significance. Consequently, Hypothesis 1g is accepted.

Reading - Desegregated and Segregated Sixth Graders.

The slight difference between sixth grade black pupils in the desegregated school and their peers in the segregated school (Table IV-1D), favorable to the former, was also nonsignificant. Consequently, Hypothesis 1h is accepted.

Reading - Desegregated Fourth and Sixth Graders.

Though in the desegregated school black fourth graders made more progress in reading than black sixth graders did (Table IV-1E), the difference was nonsignificant. Consequently, Hypothesis 1i is accepted.



Reading - Segregated Fourth and Sixth Graders. In

the segregated school, too, the difference between the reading progress of black fourth graders and that of black sixth graders was nonsignificant (Table IV-1E). Consequently, Hypothesis 1j is accepted.

TABLE IV-1A

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC AND READING OF DESEGREGATED BLACK  
ESEA TITLE I PUPILS WITH THAT OF SEGREGATED BLACK ESEA TITLE I PUPILS

Hypothesis	Desegregated Black Pupils			Segregated Black Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$P$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
1a Arithmetic - Black Pupils	6.83	5.10	36	9.80	6.09	55	2.97	2.42	.02+
1b Reading - Black Pupils	2.97	4.81	35	2.11	4.00	55	0.86	0.92	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-1B

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF DESEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I BLACK PUPILS

Hypothesis	Desegregated Black Pupils			Segregated Black Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
1c Arithmetic - 4 <sup>th</sup> Grade Black Pupils	8.25	5.13	16	14.42	4.89	24	6.17	3.83	.001+
1d Arithmetic - 6 <sup>th</sup> Grade Black Pupils	5.70	4.78	20	6.23	4.24	31	0.53	0.41	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-1C

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF DESEGREGATED AND SEGREGATED  
FOURTH GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF DESEGREGATED AND SEGREGATED  
SIXTH GRADE ESEA TITLE I BLACK PUPILS

Hypothesis	Fourth Grade Black Pupils			Sixth Grade Black Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
1e Arithmetic - Desegre- gated Black Pupils	8.25	5.13	16	5.70	4.78	20	2.55	1.54	N.S.
1f Arithmetic - Segre- gated Black Pupils	14.42	4.89	24	6.23	4.24	31	8.19	6.64	.001+

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Fourth Grade; (2) Sixth Grade.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-1D

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF DESEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I BLACK PUPILS

Hypothesis		Desegregated Black Pupils			Segregated Black Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$P$ <sup>f</sup>
		$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
1g	Reading - 4 <sup>th</sup> Grade Black Pupils	4.19	4.05	16	2.54	4.07	24	1.65	1.25	N.S.
1h	Reading - 6 <sup>th</sup> Grade Black Pupils	1.95	5.16	19	1.77	3.92	31	0.18	0.13	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-1E

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF DESEGREGATED AND SEGREGATED  
FOURTH GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF DESEGREGATED AND  
SEGREGATED SIXTH GRADE ESEA TITLE I BLACK PUPILS

Hypothesis	Fourth Grade Black Pupils			Sixth Grade Black Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
1i Reading - Desegre- gated Black Pupils	4.19	4.05	16	1.95	5.16	19	2.24	1.41	N.S.
1j Reading - Segregated Black Pupils	2.54	4.07	24	1.77	3.92	31	0.77	0.71	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Fourth Grade; (2) Sixth Grade.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).



### Academic Progress of White Pupils

The primary statistical hypothesis of no significant difference between the academic progress of the desegregated white pupils and that of the segregated white pupils is accepted for both arithmetic and reading. The difference between the two groups in arithmetic progress, favorable to the segregated pupils, was nonsignificant. Further, the slight difference between the two groups in reading progress, favorable to the desegregated white pupils, was also nonsignificant.

Consideration of the findings for secondary statistical hypotheses 2c and 2d below reveals that in the case of the white pupils the significantly superior performance of the fourth graders was insufficient to overcome the effect of a nonsignificantly inferior performance by the sixth graders and permit the segregated white pupils as a whole to exhibit arithmetic progress superior to that of their desegregated peers. In this respect the academic progress of the segregated white pupils differs from that of their black peers.

Arithmetic. The difference between desegregated and segregated white pupils in academic progress in arithmetic (Table IV-2A), favorable to the segregated white pupils, was

nonsignificant. Consequently, Hypothesis 2a is accepted.

Reading. The slight difference between desegregated and segregated white pupils in academic progress in reading, favorable to the desegregated pupils (Table IV-2A) was nonsignificant. Consequently, Hypothesis 2b is accepted.

Arithmetic - Desegregated and Segregated Fourth Graders. In arithmetic, the academic progress of segregated white fourth graders was significantly (beyond the .05 level) greater than that of desegregated white fourth graders (Table IV-2B). Consequently, Hypothesis 2c is rejected.

Arithmetic - Desegregated and Segregated Sixth Graders. On the sixth grade level, however, the difference between desegregated and segregated white pupils in academic progress in arithmetic, favorable to the former, proved nonsignificant (Table IV-2B). Consequently, Hypothesis 2d is accepted.

Arithmetic - Desegregated Fourth and Sixth Graders. When the academic progress in arithmetic of desegregated white fourth grade pupils was compared with that of sixth grade white pupils in the same school (Table IV-2C), the difference, favorable to the fourth graders, was found to be nonsignificant. Consequently, Hypothesis 2e is accepted.

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Arithmetic - Segregated Fourth and Sixth Graders.

In the segregated school, though, the difference in arithmetic progress between fourth and sixth grade white pupils, favorable to the former (Table IV-2C), was found to be significant beyond the .01 level. Consequently, Hypothesis 2f is rejected.

Reading - Desegregated and Segregated Fourth Graders.

In reading progress, the difference between desegregated and segregated white fourth graders, favorable to the former (Table IV-2D), was found to be significant beyond the .01 level. Consequently, Hypothesis 2g is rejected.

Reading - Desegregated and Segregated Sixth Graders.

However, at the sixth grade level, the difference between desegregated and segregated white pupils in reading progress, favorable to the latter, was nonsignificant (Table IV-2D). Consequently, Hypothesis 2h is accepted.

Reading - Desegregated Fourth and Sixth Graders.

In the desegregated school, white fourth graders decidedly surpassed white sixth graders in reading progress (Table IV-2E). The difference was significant beyond the .001 level. Consequently, Hypothesis 2i is rejected.

Reading - Segregated Fourth and Sixth Graders. In the segregated school, however, no significant difference between white fourth graders and white sixth graders in reading progress was found (Table IV-2E). Consequently, Hypothesis 2j is accepted.

TABLE IV-2A

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC AND READING OF DESEGREGATED WHITE  
ESEA TITLE I PUPILS WITH THAT OF SEGREGATED WHITE ESEA TITLE I PUPILS

Hypothesis	Desegregated White Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
2a Arithmetic - White Pupils	10.43	5.71	40	12.64	7.60	45	2.21	1.51	N.S.
2b Reading - White Pupils	5.38	5.90	40	4.84	4.66	45	0.54	0.46	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-2B

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF DESEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I WHITE PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Desegregated White Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
2c Arithmetic - 4 <sup>th</sup> Grade White Pupils	10.91	6.54	22	15.29	6.82	28	4.38	2.29	.05+
2d Arithmetic - 6 <sup>th</sup> Grade White Pupils	9.83	4.43	18	8.29	6.78	17	1.54	0.80	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).



TABLE IV-2C

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF DESEGREGATED AND SEGREGATED  
FOURTH GRADE ESEA TITLE I WHITE PUPILS WITH THAT OF DESEGREGATED AND SEGREGATED  
SIXTH GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Fourth Grade White Pupils			Sixth Grade White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
2e Arithmetic - Desegre- gated White Pupils	10.91	6.54	22	9.83	4.43	18	1.08	0.59	N.S.
2f Arithmetic - Segre- gated White Pupils	15.29	6.82	28	8.29	6.78	17	7.00	3.34	.01+

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Fourth Grade; (2) Sixth Grade.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-2D

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF DESEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I WHITE PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH  
GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Desegregated White Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
2g Reading - 4 <sup>th</sup> Grade White Pupils	8.59	4.05	22	5.32	3.70	28	3.27	2.98	.01+
2h Reading - 6 <sup>th</sup> Grade White Pupils	1.44	5.40	18	4.06	5.84	17	2.62	1.38	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated; (2) Segregated.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-2E

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF DESEGREGATED AND SEGREGATED  
FOURTH GRADE ESEA TITLE I WHITE PUPILS WITH THAT OF DESEGREGATED AND  
SEGREGATED SIXTH GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Fourth Grade White Pupils			Sixth Grade White Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
2i Reading - Desegre- gated White Pupils	8.59	4.05	22	1.44	5.40	18	7.15	4.78	.001+
2j Reading - Segregated White Pupils	5.32	3.70	28	4.06	5.84	17	1.26	0.89	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Fourth Grade; (2) Sixth Grade.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

### Academic Progress of Desegregated Black Pupils and Segregated White Pupils

The primary statistical hypothesis of no significant difference between the academic progress of the desegregated black pupils and that of the segregated white pupils is rejected for arithmetic but accepted for reading. There was a difference, significant beyond the .001 level, between the arithmetic progress of the desegregated black pupils and that of the segregated white pupils, a difference favorable to the latter. This finding, as indicated earlier, will be discussed in Chapter V. The difference in reading progress, also favorable to the white segregated pupils, was nonsignificant. These findings are presented in Table IV-3A.

The difference in arithmetic progress between all desegregated black pupils and all segregated white pupils, favorable to the latter, was evidently accounted for by the highly significant (beyond the .001 level) difference between the two groups at the fourth grade level (Table IV-3B). The difference between the two groups in arithmetic progress at the sixth grade level, favorable to the segregated white pupils, was nonsignificant (Table IV-3B). It, therefore, seems that there is no persisting difference between the academic

progress in either arithmetic or reading of these two groups, each a minority within its respective school population.

Arithmetic. The difference in arithmetic progress between desegregated black pupils and segregated white pupils, favorable to the segregated white pupils, was significant beyond the .001 level (Table IV-3A). Consequently, Hypothesis 3a is rejected.

Reading. The small difference between desegregated black pupils and segregated white pupils in reading progress (Table IV-3A), favorable to the segregated white pupils, was nonsignificant. Consequently, Hypothesis 3b is accepted.

Arithmetic - Desegregated Fourth Grade Black Pupils and Segregated Fourth Grade White Pupils. When the differences between desegregated black pupils and segregated white pupils were examined on a grade level basis (Table IV-3B), it was revealed that segregated fourth grade white pupils emphatically surpassed desegregated fourth grade black pupils in arithmetic progress. The difference was significant at the .001 level. Consequently, Hypothesis 3c is rejected.

Arithmetic - Desegregated Sixth Grade Black Pupils and Segregated Sixth Grade White Pupils. However, when desegregated black pupils and segregated white pupils were

compared at the sixth grade level, the difference in arithmetic progress (Table Iv-3B), favorable to the segregated white pupils, was found to be nonsignificant. Consequently, Hypothesis 3d is accepted.

Reading - Desegregated Fourth Grade Black Pupils and Segregated Fourth Grade White Pupils. In reading, though, segregated fourth grade white pupils made greater progress than desegregated fourth grade black pupils did (Table IV-3C), the difference was nonsignificant. Consequently, Hypothesis 3e is accepted.

Reading - Desegregated Sixth Grade Black Pupils and Segregated Sixth Grade White Pupils. At the sixth grade level, too, the difference between desegregated black pupils and segregated white pupils in reading progress (Table IV-3C), again favorable to the segregated white pupils, proved to be nonsignificant. Consequently, Hypothesis 3f is accepted.



TABLE IV-3A

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC AND READING OF DESEGREGATED  
ESEA TITLE I BLACK PUPILS WITH THAT OF SEGREGATED ESEA TITLE I WHITE PUPILS

Hypothesis	Desegregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
3a Arithmetic	6.83	5.10	36	12.64	7.60	45	5.81	3.93	.001+
3b Reading	2.97	4.81	35	4.84	4.66	45	1.87	1.76	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated Black Pupils;  
(2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the  
first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the ob-  
served relationship could occur by chance less than 1 time in 1000. The position tak-  
en in this investigation is that if a relationship could have occurred by chance more  
than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-3B

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF DESEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Desegregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
3c Arithmetic 4 <sup>th</sup> Graders	8.25	5.13	16	15.29	6.82	28	7.04	3.58	.001+
3d Arithmetic 6 <sup>th</sup> Graders	5.70	4.78	20	8.29	6.78	17	2.59	1.36	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated Black Pupils; (2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-3C

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF DESEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I BLACK PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I WHITE PUPILS

Hypothesis	Desegregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
3e Reading - 4 <sup>th</sup> Graders	4.19	4.05	16	5.32	3.69	28	1.13	0.95	N.S.
3f Reading - 6 <sup>th</sup> Graders	1.95	5.16	19	4.06	5.84	17	1.15	2.11	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Desegregated Black Pupils; (2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

### Academic Progress of Segregated Black Pupils and Segregated White Pupils

The primary statistical hypothesis of no significant difference between the academic progress of segregated black pupils and that of segregated white pupils is rejected for both arithmetic and reading. There was a difference significant at the .05 level between the arithmetic progress of the segregated black pupils and that of the segregated white pupils, favorable to the latter. The difference between the two groups in reading progress, also favorable to the segregated white pupils, was significant beyond the .01 level. These findings are presented in Table IV-4A.

When the difference between the two groups in arithmetic progress is examined on a grade level basis, no significant difference is found at either the fourth or the sixth grade level (Table IV-4B). In reading, however, though the difference between the two groups at the sixth grade level is nonsignificant (Table IV-4C), the difference at the fourth grade level, favorable to the segregated white pupils, was significant beyond the .02 level. It seems clear that the academic progress of the white minority in the segregated

school did not suffer by comparison with that of the black majority.

Arithmetic. When the progress in arithmetic of segregated black pupils was compared with that of segregated white pupils (Table IV-4A), the difference, favorable to the white pupils, was found to be significant at the .05 level. Consequently, Hypothesis 4a is rejected.

Reading. Comparison of the reading progress of segregated black pupils with that of segregated white pupils (Table IV-4A) revealed a difference significant beyond the .01 level, favorable to the segregated white pupils. Consequently, Hypothesis 4b is rejected.

Arithmetic - Segregated Black Fourth Graders and Segregated White Fourth Graders. When arithmetic progress was considered on a grade level basis (Table IV-4B), it was discovered that the slight difference between segregated black pupils and segregated white pupils, favorable to the white pupils, was not significant. Consequently, Hypothesis 4c is accepted.

Arithmetic - Segregated Black Sixth Graders and Segregated White Sixth Graders. At the sixth grade level also, the difference in arithmetic progress between segregated black

pupils and segregated white pupils (Table IV-4B), favorable to the white pupils, was nonsignificant. Consequently, Hypothesis 4d is accepted.

Reading - Segregated Black Fourth Graders and Segregated White Fourth Graders. The reading progress of black and white segregated fourth grade pupils (Table IV-4C) was significantly (beyond the .02 level) different. White segregated pupils made more progress than black segregated pupils did. Consequently, Hypothesis 4e is rejected.

Reading - Segregated Black Sixth Graders and Segregated White Sixth Graders. However, when the reading progress of segregated sixth grade black pupils was compared with that of segregated sixth grade white pupils (Table IV-4C), the difference, favorable to the white pupils, was found to be nonsignificant. Consequently, Hypothesis 4f is accepted.



TABLE IV-4A

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC AND READING OF SEGREGATED BLACK  
ESEA TITLE I PUPILS WITH THAT OF SEGREGATED WHITE ESEA TITLE I PUPILS

Hypothesis	Segregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
4a Arithmetic	9.80	6.09	55	12.64	7.60	45	2.84	2.08	.05
4b Reading	2.11	4.00	55	4.84	4.66	45	2.73	3.16	.01+

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Segregated Black Pupils; (2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-4B

COMPARISON OF THE ACADEMIC PROGRESS IN ARITHMETIC OF SEGREGATED FOURTH AND SIXTH GRADE BLACK ESEA TITLE I PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH GRADE WHITE ESEA TITLE I PUPILS

Hypothesis	Segregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2$ <sup>d</sup>	$t$ <sup>e</sup>	$p$ <sup>f</sup>
	$\bar{X}_1$ <sup>a</sup>	$s_1$ <sup>b</sup>	$N_1$ <sup>c</sup>	$\bar{X}_2$	$s_2$	$N_2$			
4c Arithmetic - 4 <sup>th</sup> Graders	14.42	4.89	24	15.29	6.82	28	0.87	0.52	N.S.
4d Arithmetic - 6 <sup>th</sup> Graders	6.23	4.24	31	8.29	6.78	17	2.06	1.14	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Segregated Black Pupils; (2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

TABLE IV-4C

COMPARISON OF THE ACADEMIC PROGRESS IN READING OF SEGREGATED FOURTH AND SIXTH GRADE  
BLACK ESEA TITLE I PUPILS WITH THAT OF SEGREGATED FOURTH AND SIXTH GRADE  
WHITE ESEA TITLE I PUPILS

Hypothesis	Segregated Black Pupils			Segregated White Pupils			$\bar{X}_1 - \bar{X}_2^d$	$t^e$	$p^f$
	$\bar{X}_1^a$	$s_1^b$	$N_1^c$	$\bar{X}_2$	$s_2$	$N_2$			
4e Reading - 4 <sup>th</sup> Graders	2.54	4.07	24	5.32	3.69	28	2.78	2.58	.02+
4f Reading - 6 <sup>th</sup> Graders	1.77	3.92	31	4.06	5.84	17	2.29	1.45	N.S.

<sup>a</sup>Mean gain. The subscripts refer to the groups: (1) Segregated Black Pupils; (2) Segregated White Pupils.

<sup>b</sup>Standard deviation. <sup>c</sup>Number of pupils. <sup>d</sup>Difference between the mean gain of the first group and that of the second group.

<sup>e</sup>Value of the statistic used in testing these hypotheses, Student's  $t$ .

<sup>f</sup>Probability. For example, a figure of .001+ in this column means that the observed relationship could occur by chance less than 1 time in 1000. The position taken in this investigation is that if a relationship could have occurred by chance more than 5 times in 100, it is nonsignificant (N.S.).

### III. INTERRACIAL FRIENDSHIPS

A major objective of this study was to discover whether children who attend a disegregated school form more interracial friendships than children who attend a segregated school do. The data relating to this research objective, as was explained in the preceding chapter, was collected by means of a questionnaire administered at school in a one-to-one private interview by a trained school aide known to the children and of the same race. Responses to individual questionnaire items 1, 3, 4, 5, 8, 13, 17, 18, 19, 20, and 21<sup>1</sup> were consolidated into a single composite item. It is this composite item which forms the basis for the statistical analysis and directly provided the data which follow. As was explained in Chapter III, the racial/ethnic category "Other" which appears in the tables includes American Indian, Oriental, Spanish Surname, and Filipino and Other Minorities.

In the presentation of the friendship data the order already established in the preceding section will be followed. Though a different statistical test, chi-square, is used in connection with the hypotheses which remain, "accepted" and

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<sup>1</sup>See Appendix B.

"rejected" continue to mean what they did in the previous section: the hypothesis is accepted if no significant difference between the two groups is found; it is rejected if a significant difference is found.

Interracial Friendships in the Desegregated School Compared With Those in the Segregated School

The primary statistical hypothesis of no significant difference between the frequency with which desegregated and segregated pupils choose other-racial-group friends (Table IV-5A) is rejected for black pupils but accepted for white pupils. Desegregated black pupils revealed a tendency to choose white friends which was more than two-and-a-half times as great as that of their segregated peers. The difference between the two groups of black pupils (Table IV-5A) was significant beyond the .001 level. Desegregated white pupils chose a larger percentage of black friends than their segregated peers did (Table IV-5A), but the difference between the two groups fell short of significance.

Within the desegregated school, white pupils tended to choose fewer friends of their own race and a larger percentage of other-racial-group friends than their black peers

did. The difference between the friendship choices of desegregated white pupils and those of desegregated black pupils (Table IV-5B) was significant beyond the .001 level. Within the segregated school, the differences between the friendship choices of black pupils and those of whites (significant beyond the .001 level) was uniquely great. The black segregated pupils chose 88.2% of their friends from among blacks, while white pupils chose 63.6% of their friends from among whites (Table IV-5B).

Apparently, the desegregated school environment has a greater tendency to promote other-racial-group friendships among black pupils than among whites. It seems clear, though, that for both groups the desegregated school setting is more conducive to the formation of other-racial-group friendships than the segregated school environment is.

Desegregated and Segregated Black Pupils. When the friendship choices of desegregated black pupils were compared with those of segregated black pupils (Table IV-5A), it was found that a difference significant beyond the .001 level existed between the friendship choices of the two groups. Consequently, Hypothesis 5a is rejected. Desegregated black pupils displayed a tendency to form friendships with white



pupils which was more than two-and-a-half times as great as that exhibited by their segregated peers. Further, nearly 20% fewer of their friends were black pupils (68.3% to 88.2%). Finally, the desegregated black pupils showed nearly three times as great a tendency to form friendships with "Other" pupils as their segregated counterparts did (9.0% to 3.1%).

Desegregated and Segregated White Pupils. The friendship choices of desegregated white pupils, compared to those of their segregated peers (Table IV-5A), included a larger percentage of friendships with black pupils (27.6% to 22.8%) and fewer friendships with other white pupils (60.5% to 63.6%), but these differences were found to be nonsignificant. Consequently, Hypothesis 5b is accepted. Further, desegregated white pupils formed somewhat fewer friendships with "Other" pupils than their segregated peers did (12.0% to 13.6%).

Desegregated Black Pupils and Desegregated White Pupils. Comparison of the friendship choices of desegregated black pupils with those of desegregated white pupils (Table IV-5B) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 5c is rejected. The tendency of desegregated black pupils to form friendships with white

pupils was smaller (22.8% to 27.6%) than the tendency of desegregated white pupils to form friendships with black pupils. The tendency of desegregated black pupils to choose black friends was greater than the tendency of desegregated white pupils to choose white friends (68.3% to 60.5%). Also, desegregated white pupils formed one-third more friendships with "Other" pupils than desegregated black pupils did (12.0% to 9.0%).

#### Segregated Black Pupils and Segregated White Pupils.

When the friendship choices of segregated black pupils were compared with those of segregated white pupils (Table IV-5B), a difference was noted that was significant beyond the .001 level. Consequently, Hypothesis 5d is rejected. Segregated white pupils showed more than two-and-a-half times as great a tendency to form friendships with black pupils as segregated black pupils showed to form friendships with white pupils (22.8% to 8.7%). Segregated black pupils chose a much larger percentage of their friends from black than segregated white pupils chose from whites (88.2% to 63.6%). Finally, segregated black pupils chose less than one-fourth as many of their friends from among "Other" students as segregated white pupils did (3.1% to 13.6%).

Desegregated Fourth Grade Pupils and Desegregated Sixth Grade Pupils. Comparison of the friendship choices of desegregated fourth grade pupils with those of desegregated sixth grade pupils (Table IV-5C) revealed a difference significant beyond the .01 level. Consequently, Hypothesis 5e is rejected. The desegregated fourth graders had a smaller percentage of black friends (43.5% to 50.2%), a larger percentage of white friends (48.3% to 36.8%), and a smaller percentage of "Other" friends than the desegregated sixth graders had (8.1% to 13.0%).

Segregated Fourth Grade Pupils and Segregated Sixth Grade Pupils. When the friendship choices of segregated pupils were compared on a grade level basis (Table IV-5C), it was found that fourth graders exhibited a difference from sixth graders which was significant beyond the .001 level. Consequently, Hypothesis 5f is rejected. Sixth graders showed a greater tendency to form friendships with black pupils (66.8% to 52.9%), a markedly lesser tendency to form friendships with white pupils (22.1% to 42.6%), and a much greater tendency to form friendships with "Other" pupils (11.1% to 4.5%).

Desegregated Fourth Graders and Segregated Fourth

Graders. The friendship choices of desegregated fourth graders differed from those of segregated fourth graders (Table IV-5D) with a magnitude significant beyond the .01 level. Consequently, Hypothesis 5g is rejected. The desegregated fourth graders differed from their segregated peers in that they chose a smaller percentage of black friends (43.5% to 52.9%), a larger percentage of white friends (48.3% to 42.6%), and a larger percentage of "Other" friends (8.1% to 4.5%).

Desegregated Sixth Graders and Segregated Sixth

Graders. Comparison of the friendship choices of desegregated sixth graders with those of segregated sixth graders (Table IV-5D) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 5h is rejected. Desegregated sixth graders differed from their segregated peers in that they chose a smaller percentage of black friends (50.2% to 66.8%), a larger percentage of white friends (36.8% to 22.1%), and a slightly larger percentage of "Other" friends (13.0% to 11.1%).

TABLE IV-5A

COMPARISON OF THE FRIENDSHIP CHOICES OF DESEGREGATED BLACK AND WHITE ESEA TITLE I PUPILS WITH THOSE OF SEGREGATED BLACK AND WHITE ESEA TITLE I PUPILS

Hypothesis	Desegregated Pupils						Segregated Pupils					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
5a Black Pupils	267	68.3	89	22.8	35	9.0	518	88.2	51	8.7	18	3.1
Chi-Square = 59.12. df = 2. Significant beyond the .001 level.												
5b White Pupils	120	27.6	263	60.5	52	12.0	104	22.8	290	63.6	62	13.6
Chi-Square = 2.85. df = 2. Nonsignificant.												

<sup>a</sup>Number of choices. For example, desegregated black pupils chose 267 black friends. Segregated white pupils chose 104 black friends.

<sup>b</sup>Percent of total friendship choices. For example, 68.3% of the friends of desegregated black pupils were other black pupils. Segregated white pupils chose 22.8% of their friends from among black pupils.

TABLE IV-5B

COMPARISON OF THE FRIENDSHIP CHOICES OF DESEGREGATED AND SEGREGATED BLACK ESEA  
TITLE I PUPILS WITH THOSE OF DESEGREGATED AND SEGREGATED WHITE  
ESEA TITLE I PUPILS

Hypothesis	Black Pupils						White Pupils					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
5c Desegregated Pupils	267	68.3	89	22.8	35	9.0	120	27.6	263	60.5	52	12.0
	Chi-Square = 143.23. df = 2. Significant beyond the .001 level.											
5d Segregated Pupils	518	88.2	51	8.7	18	3.1	104	22.8	290	63.6	62	13.6
	Chi-Square = 458.01. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of choices. For example, black desegregated pupils chose 267 black friends. White segregated pupils chose 104 black friends.

<sup>b</sup>Percent of total friendship choices. For example, 68.3% of the friends of black desegregated pupils were other black pupils. White segregated pupils chose 22.8% of their friends from among black pupils.



TABLE IV-5C

COMPARISON OF THE FRIENDSHIP CHOICES OF DESEGREGATED AND SEGREGATED FOURTH GRADE  
ESEA TITLE I PUPILS WITH THOSE OF DESEGREGATED AND SEGREGATED SIXTH GRADE  
ESEA TITLE I PUPILS

Hypothesis	Fourth Grade Pupils						Sixth Grade Pupils					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
5e Desegregated Pupils	182	43.5	202	48.3	34	8.1	205	50.2	150	36.8	53	13.0
Chi-Square = 13.08. df = 2. Significant beyond the .01 level.												
5f Segregated Pupils	284	52.9	229	42.6	24	4.5	338	66.8	112	22.1	56	11.1
Chi-Square = 56.76. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of choices. For example, desegregated fourth grade pupils chose 182 black friends. Segregated sixth grade pupils chose 338 black friends.

<sup>b</sup>Percent of total friendship choices. For example, 43.5% of the friends of desegregated fourth grade pupils were black pupils. Segregated sixth grade pupils chose 66.8% of their friends from among black pupils.

TABLE IV-5D

COMPARISON OF THE FRIENDSHIP CHOICES OF DESEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THOSE OF SEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS

Hypothesis	Desegregated Pupils						Segregated Pupils					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
5g 4 <sup>th</sup> Graders	182	43.5	202	48.3	34	8.1	284	52.9	229	42.6	24	4.5
Chi-Square = 11.08. df = 2. Significant beyond the .01 level.												
5h 6 <sup>th</sup> Graders	205	50.2	150	36.8	53	13.0	338	66.8	112	22.1	56	11.1
Chi-Square = 27.99. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of choices. For example, desegregated fourth graders chose 182 black friends. Segregated sixth graders chose 338 black friends.

<sup>b</sup>Percent of total friendship choices. For example, 43.5% of the friends of desegregated fourth graders were black pupils. Segregated sixth graders chose 66.8% of their friends from among black pupils.

Interracial Friendships in the Desegregated and Segregated  
Schools Compared With the Racial Mix in Each School

The primary statistical hypothesis that the friendship pattern of desegregated pupils would conform no more closely to the racial mix of the school than the friendship pattern of the segregated pupils would is accepted for both black and white pupils (Tables IV-6A and IV-6B). The friendship pattern of each group differed significantly from the racial mix of the school. The difference between the friendship pattern of the desegregated black pupils and the racial mix of their school was significant beyond the .001 level. The difference between the friendship pattern of the desegregated white pupils and the racial mix of their school was significant beyond the .05 level. In the segregated school (Table IV-6B), the difference between the friendship pattern of both the black and the white pupils and the racial mix of their school was significant beyond the .001 level.

In these comparisons, the striking finding is the exceptional approximation of the friendship choices of the desegregated white pupils to the racial mix of the desegregated school (Table IV-6A). Though the discrepancy is statistically significant, the friendship pattern of the desegregated white pupils is conspicuously closer to the school's

racial mix than is the friendship pattern of the segregated white pupils to the racial mix of their school. This suggests that in a desegregated school the friendship choices of white pupils may be much freer of racial bias than in a segregated school.

It is also noteworthy that in the desegregated school the friendships of black pupils with whites conformed much more closely to the number of whites available than the friendships of black pupils with whites in the segregated school did to the availability of whites in the segregated school. This may be taken as further evidence of the tendency of the desegregated school environment to promote interracial friendships.

Desegregated Black Pupils. When the friendship pattern of the desegregated black pupil sample was compared with the racial mix in the desegregated school (Table IV-6A), the two were found to differ significantly (beyond the .001 level). Consequently, Hypothesis 6a is rejected. Whereas 54.1% of the pupils in the desegregated school were white, only 22.8% of the friends of desegregated black pupils were white. Though blacks composed 31.4% of the school population, 68.3% of the friends of desegregated black pupils were other blacks.

Finally, though "Other" pupils composed 14.5% of the desegregated school population, they composed only 3.1% of the friends of desegregated black pupils.

Desegregated White Pupils. Comparison of the friendship pattern of desegregated white pupils with the racial mix in the desegregated school (Table IV-6A) revealed a significant difference. Consequently, Hypothesis 6b is rejected. Nevertheless, the friendship choices of desegregated white pupils came closer than those of any other group to matching the racial mix of the school. Whereas 31.4% of the pupils in the desegregated school were black, 27.6% of the friends of the desegregated white pupils were black. Whites composed 54.1% of the pupil population of the desegregated school; they composed 60.5% of the friends of the desegregated white pupils. Finally, "Other" pupils formed 14.5% of the desegregated school population and 12.0% of the friends of the desegregated white pupils.

Segregated Black Pupils. A difference significant beyond the .001 level was revealed between the friendship pattern of the segregated black pupils and the racial mix of the segregated school (Table IV-6B). Consequently, Hypothesis 6c is rejected. Black segregated pupils chose 88.2% of their



friends from blacks, who composed only 56.4% of the school population. They chose only 8.7% of their friends from whites, who composed 29.3% of the segregated school population. Finally, they chose only 3.1% of their friends from among "Other" pupils though these pupils constituted 14.3% of the segregated school population.

Segregated White Pupils. Comparison of the friendship pattern of segregated white pupils with the racial mix of the segregated school (Table IV-6B) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 6d is rejected. With a school population consisting of 56.4% black pupils, only 22.8% of the friends of the segregated white pupils were black. Whereas only 29.3% of the school population were white pupils, 63.6% of the friends of the segregated white pupils were white. The "Other" friend choices of the segregated white pupils, however, nearly matched the percentage available (13.6% to 14.3%).

Desegregated Fourth Graders. When the friendship pattern of desegregated fourth grade pupils was compared with the racial mix of the desegregated school (Table IV-6C), a difference significant beyond the .001 level was revealed. Consequently, Hypothesis 6e is rejected. Whereas black



pupils composed 31.4% of the desegregated school pupil population, they composed 43.5% of the friends of desegregated fourth grade pupils. White pupils, composing 54.1% of the school population, composed 48.3% of the friends of desegregated fourth graders. Finally, "Other" pupils, composing 14.5% of the desegregated school pupil population, comprised only 8.1% of the friends of the desegregated fourth grade sample.

Desegregated Sixth Graders. The friendship choices of the desegregated sixth grade pupils differed from the racial mix of the desegregated school with a magnitude significant beyond the .001 level (Table IV-6C). Consequently, Hypothesis 6f is rejected. In a school population, 31.4% black, 50.2% of the friends of the desegregated sixth grade pupils were black. With 54.1% of the school population white, 36.8% of the friends of the desegregated sixth graders were white. Finally, the "Other" friendship choices of the desegregated sixth graders came much closer to matching the percentage of "Other" friends available (13.0% to 14.5%).

Segregated Fourth Graders. When the friendship pattern of segregated fourth grade pupils was compared with the racial mix in the segregated school (Table IV-6D), a

difference significant beyond the .001 level was revealed. Consequently, Hypothesis 6g is rejected. Friendship choices of segregated fourth graders from among black pupils came close to matching the percentage available (52.9% to 56.4%). However, white friendship choices were much more numerous than the mix suggested (42.6% to 29.3%). Finally, the "Other" friend choices of the segregated fourth graders were far fewer than their availability would suggest (4.5% to 14.3%).

Segregated Sixth Graders. Comparison of the friendship pattern of segregated sixth grade pupils with the racial mix of the segregated school revealed a difference significant beyond the .001 level (Table IV-6D). Consequently, Hypothesis 6h is rejected. Whereas black pupils composed 56.4% of the population of the segregated school, 66.8% of the friends of the segregated sixth grade pupil sample were black. Though white pupils composed 29.3% of the school population, they accounted for only 22.1% of the friendship choices of the segregated sixth graders. Finally, the "Other" friendship choices of the segregated sixth graders and the percent "Other" available in the population compared (11.1% to 14.3%).

TABLE IV-6A

COMPARISON OF THE ACTUAL FRIENDSHIP CHOICES OF DESEGREGATED BLACK AND WHITE  
ESEA TITLE I PUPILS WITH THEIR POSSIBLE FRIENDSHIP CHOICES  
AS DETERMINED BY THE RACIAL MIX IN THEIR SCHOOL

Hypothesis	Desegregated Pupils						Desegregated Racial Mix					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No. <sup>c</sup>	% <sup>d</sup>	No.	%	No.	%
6a Black Pupils	267	68.3	89	22.8	35	3.1	123	31.4	212	54.1	57	14.5
Chi-Square = 248.44. df = 2. Significant beyond the .001 level.												
6b White Pupils	120	27.6	263	60.5	52	12.0	136	31.4	235	54.1	63	14.5
Chi-Square = 7.14. df = 2. Significant beyond the .05 level.												

<sup>a</sup>Number of choices. (For additional explanation see the IV-5 series tables.)

<sup>b</sup>Percent of total friendship choices. <sup>c</sup>Number of choices possible. For example, if the friendship choices of desegregated black pupils had perfectly reflected the school's racial mix, 123 of the choices would have been for black pupils.

<sup>d</sup>Percent of school population. For example, in the desegregated school 31.4% of the pupils were black. Since these percentages refer to the entire school population, they are the same for blacks as for whites. The number of choices possible varies because the percentages are applied to total friendship choices which are unique for each group.

TABLE IV-6B

COMPARISON OF THE ACTUAL FRIENDSHIP CHOICES OF SEGREGATED BLACK AND WHITE  
ESEA TITLE I PUPILS WITH THEIR POSSIBLE FRIENDSHIP CHOICES  
AS DETERMINED BY THE RACIAL MIX IN THEIR SCHOOL

Hypothesis	Segregated Pupils						Segregated Racial Mix					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No. <sup>c</sup>	% <sup>d</sup>	No.	%	No.	%
6c Black Pupils	518	88.2	51	8.7	18	3.1	331	56.4	172	29.3	84	14.3
	Chi-Square = 242.63. df = 2. Significant beyond the .001 level.											
6d White Pupils	104	22.8	290	63.6	62	13.6	257	56.4	134	29.3	65	14.3
	Chi-Square = 272.84. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of choices. (For additional explanation see the IV-5 series tables.)

<sup>b</sup>Percent of total friendship choices. <sup>c</sup>Number of choices possible. For example, if the friendship choices of segregated black pupils had perfectly reflected the school's racial mix, 331 of the choices would have been for black pupils.

<sup>d</sup>Percent of school population. For example, in the segregated school 56.4% of the pupils were black. Since these percentages refer to the entire school population, they are the same for blacks as for whites. The number of choices possible varies because the percentages are applied to total friendship choices which are unique for each group.

TABLE IV-6C

COMPARISON OF THE ACTUAL FRIENDSHIP CHOICES OF DESEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THEIR POSSIBLE FRIENDSHIP CHOICES  
AS DETERMINED BY THE RACIAL MIX IN THEIR SCHOOL

Hypothesis	Desegregated Pupils						Desegregated Racial Mix					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No. <sup>c</sup>	% <sup>d</sup>	No.	%	No.	%
6e Fourth Grade	182	43.5	202	48.3	34	8.1	131	31.4	226	54.1	61	14.5
Chi-Square = 34.35. df = 2. Significant beyond the .001 level.												
6f Sixth Grade	205	50.2	150	36.8	53	13.0	128	31.4	221	54.1	59	14.5
Chi-Square = 69.74. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of choices. (For additional explanation see the IV-5 series tables.)

<sup>b</sup>Percent of total friendship choices. <sup>c</sup>Number of choices possible. For example, if the friendship choices of desegregated fourth grade pupils had perfectly reflected the school's racial mix, 131 of the choices would have been for black pupils.

<sup>d</sup>Percent of school population. For example, in the desegregated school, 31.4% of the pupils were black. Since these percentages refer to the entire school population, they are the same for blacks as for whites. The number of choices possible varies because the percentages are applied to total friendship choices which are unique for each group.



TABLE IV-6D

COMPARISON OF THE ACTUAL FRIENDSHIP CHOICES OF SEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THEIR POSSIBLE FRIENDSHIP CHOICES  
AS DETERMINED BY THE RACIAL MIX IN THEIR SCHOOL

Hypothesis	Segregated Pupils						Segregated Racial Mix					
	Black		White		Other		Black		White		Other	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No. <sup>c</sup>	% <sup>d</sup>	No.	%	No.	%
6g Fourth Grade	284	52.9	229	42.6	24	4.5	303	56.4	157	29.3	77	14.3
Chi-Square = 70.69. df = 2. Significant beyond the .001 level.												
6h Sixth Grade	338	66.8	112	22.1	56	11.1	286	56.4	148	29.3	72	14.3
Chi-Square = 21.77. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of choices. (For additional explanation see the IV-5 series tables.)

<sup>b</sup>Percent of total friendship choices. <sup>c</sup>Number of choices possible. For example, if the friendship choices of segregated fourth grade pupils had perfectly reflected the school's racial mix, 303 of the choices would have been for black pupils.

<sup>d</sup>Percent of school population. For example, in the segregated school 56.4% of the pupils were black. Since these percentages refer to the entire school population, they are the same for blacks as for whites. The number of choices possible varies because the percentages are applied to total friendship choices which are unique for each group.



#### IV. ATTITUDES TOWARD SCHOOL

Data regarding attitudes of children and parents toward school, the third major area of concern in this investigation, were collected, as indicated in Chapter III, by means of questionnaires administered individually in private, one-to-one interviews. The interviewers were recruited from the ESEA Title I school aides employed by the school district, were of the same race as the interviewees, and were experienced interviewers. In the case of parents, the interviews were held in the respondents' homes.

Responses to items 22 through 44 of the student interview schedule<sup>2</sup> and corresponding responses 1 through 23 of the parent interview schedule<sup>3</sup> were pooled in a single composite attitudes-toward-school item for children and another such item for parents. The analysis to follow is directly based on the respective composite items. First, data concerning the children's attitudes will be presented; second, that concerning the parents' attitudes; and finally, the data relating to the comparison of children's and parents' attitudes will be cited.

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<sup>2</sup>See Appendix B.

<sup>3</sup>See Appendix C.

### Pupils' Attitudes Toward School

The primary statistical hypothesis of no significant difference between the attitudes toward school of desegregated and segregated pupils is rejected for both black and white pupils (Table IV-7A). The difference between the attitudes toward school of desegregated and segregated black pupils, like the difference between the attitudes toward school of desegregated and segregated white pupils, was significant beyond the .001 level. Both black and white pupils in the desegregated schools expressed much stronger approval of school than their peers in the segregated school did. Clearly, in this study the desegregated schools evoked greater enthusiasm from their pupils.

Within the desegregated school, there was no significant difference (Table IV-7B) between the attitudes toward school of black and white pupils. The school was apparently equally appealing to pupils of both races. This suggests a higher level of pupil morale in the desegregated schools. In contrast, within the segregated school the difference in attitudes between blacks and whites was significant beyond the .001 level (Table IV-7B). Black pupils expressed much stronger positive attitudes toward the segregated school than

the white pupils did. The consonance of opinion characteristic of attitudes toward school among the desegregated pupils was conspicuously lacking among their segregated peers.

Desegregated and Segregated Black Pupils. Comparison of the attitudes toward school of desegregated black pupils with those of segregated black pupils (Table IV-7A) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 7a is rejected. The desegregated black pupils expressed significantly more positive attitudes toward school than the segregated black pupils did (66.5% to 58.7%). The difference in negative attitudes, favoring the desegregated black pupils, was even more pronounced (20.8% to 30.1%). The two groups differed only slightly in the degree of their uncertainty, with the difference favorable to the segregated black pupils (11.1% to 12.7%).

Desegregated and Segregated White Pupils. Comparison of the attitudes toward school of desegregated white pupils with those of segregated white pupils (Table IV-7A) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 7b is rejected. The desegregated white pupils were nearly one-third more positive in their attitudes toward school than their segregated peers were (64.1% to 48.5%).

They also expressed fewer negative attitudes (21.4% to 29.5%). Finally, they expressed greater certainty in their attitudes than their segregated counterparts did (14.4% uncertain to 22.0% uncertain).

Desegregated Black Pupils and Desegregated White Pupils. Comparison of the attitudes toward school of desegregated black pupils with those of desegregated white pupils (Table IV-7B) revealed no significant difference. Consequently, Hypothesis 7c is accepted.

Segregated Black Pupils and Segregated White Pupils. Comparison of the attitudes toward school of segregated black pupils with those of segregated white pupils (Table IV-7B) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 7d is rejected. Black pupils in the segregated school differed significantly from their white peers in attitudes toward school. The former were more approving (58.7% to 48.5%). There was scant difference between the two groups in negative attitudes. Finally, blacks were much more sure of their attitudes toward school than the segregated white pupils were (11.1% uncertain to 22.0% uncertain).

Desegregated Fourth Graders and Segregated Fourth

Graders. Comparison of the attitudes toward school of desegregated fourth grade pupils with those of segregated fourth grade pupils (Table IV-7C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 7e is rejected. Desegregated fourth graders were more positive in their attitudes toward school than their segregated peers were (62.9% to 51.8%). Segregated fourth graders were more negative in their attitudes than desegregated fourth graders were (29.8% to 21.2%). The segregated pupils were also more unsure of their attitudes than their desegregated counterparts were (18.4% to 15.9%).

Desegregated Sixth Graders and Segregated Sixth

Graders. Comparison of the attitudes toward school of desegregated sixth grade pupils with those of segregated sixth grade pupils (Table IV-7C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 7f is rejected. The desegregated pupils were significantly more approving of school than the segregated pupils were (67.7% to 56.8%). Also, the desegregated pupils were much less negative in their attitudes toward school (21.1% to 29.9%). The



slight difference in uncertainty was favorable to the desegregated pupils, too (11.2% uncertain to 13.3% uncertain).

Desegregated Fourth Graders and Desegregated Sixth Graders. Comparison of the attitudes toward school of desegregated fourth grade pupils with those of desegregated sixth grade pupils (Table IV-7D) revealed a difference significant beyond the .02 level. Consequently, Hypothesis 7g is rejected. The desegregated sixth graders were more positive in their attitudes toward school than the desegregated fourth graders were (67.7% to 62.9%). The two groups were practically identical in their negative attitudes (fourth 21.2%, sixth 21.1%). However, the sixth graders were more sure of their attitudes than the fourth graders were (11.2% uncertain to 15.9% uncertain).

Segregated Fourth Graders and Segregated Sixth Graders. Comparison of the attitudes toward school of segregated fourth grade pupils with those of segregated sixth grade pupils (Table IV-7D) revealed a difference significant beyond the .01 level. Consequently, Hypothesis 7h is rejected. In the segregated as in the desegregated school sixth graders expressed more positive attitudes toward school than fourth graders did (56.8% to 51.8%). As was true in the desegregated



school, the groups were virtually identical in regard to their negative attitudes (fourth 29.8%, sixth 29.9%). Again, as was true in the desegregated school, sixth graders were more sure of their attitudes than fourth graders were (13.3% uncertain to 18.4% uncertain).

TABLE IV-7A

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF DESEGREGATED BLACK AND WHITE ESEA  
TITLE I PUPILS WITH THOSE OF SEGREGATED BLACK AND WHITE ESEA TITLE I PUPILS

Hypothesis	Desegregated Pupils						Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
7a Black Pupils	551	66.5	172	20.8	105	12.7	743	58.7	381	30.1	141	11.1
	Chi-Square = 22.49. df = 2. Significant beyond the .001 level.											
7b White Pupils	604	64.1	202	21.4	136	14.4	488	48.5	297	29.5	221	22.0
	Chi-Square = 48.60. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated black pupils was 551. Segregated white pupils expressed 488 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated black pupils 66.5% were positive. Of the attitudes expressed by segregated white pupils 48.5% were positive.

TABLE IV-7B

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF BLACK DESEGREGATED AND SEGREGATED  
ESEA TITLE I PUPILS WITH THOSE OF WHITE DESEGREGATED AND SEGREGATED  
ESEA TITLE I PUPILS

Hypothesis	Black Pupils						White Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
7c Desegregated Pupils	551	66.5	172	20.8	105	12.7	604	64.1	202	21.4	136	14.4
Chi-Square = 1.49. df = 2. Nonsignificant.												
7d Segregated Pupils	743	58.7	381	30.1	141	11.1	488	48.5	297	29.5	221	22.0
Chi-Square = 52.04. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated black pupils was 551. Segregated white pupils expressed 488 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated black pupils 66.5% were positive. Of the attitudes expressed by segregated white pupils 48.5% were positive.

TABLE IV-7C

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF DESEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THOSE OF SEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS

Hypothesis	Desegregated Pupils						Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
7e Fourth Grade Pupils	564	62.9	190	21.2	143	15.9	604	51.8	348	29.8	215	18.4
Chi-Square = 27.40. df = 2. Significant beyond the .001 level.												
7f Sixth Grade Pupils	591	67.7	184	21.1	98	11.2	627	56.8	330	29.9	147	13.3
Chi-Square = 25.70. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated fourth grade pupils was 564. Segregated sixth grade pupils expressed 627 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated fourth grade pupils 62.9% were positive. Of the attitudes expressed by segregated sixth grade pupils 56.8% were positive.

TABLE IV-7D

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF DESEGREGATED AND SEGREGATED FOURTH  
GRADE ESEA TITLE I PUPILS WITH THOSE OF DESEGREGATED AND SEGREGATED SIXTH  
GRADE ESEA TITLE I PUPILS

Hypothesis		Fourth Grade Pupils						Sixth Grade Pupils					
		Positive		Negative		Uncertain		Positive		Negative		Uncertain	
		No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
7g	Desegregated Pupils	564	62.9	190	21.2	143	15.9	591	67.7	184	21.1	98	11.2
		Chi-Square = 8.81. df = 2. Significant beyond the .02 level.											
7h	Segregated Pupils	604	51.8	348	29.8	215	18.4	627	56.8	330	29.9	147	13.3
		Chi-Square = 11.94. df = 2. Significant beyond the .01 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated fourth grade pupils was 564. Segregated sixth grade pupils expressed 627 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated fourth grade pupils 62.9% were positive. Of the attitudes expressed by segregated sixth grade pupils 56.8% were positive.

### Parents' Attitudes Toward School

The primary statistical hypothesis of no significant difference between the attitudes toward school of the parents of pupils attending the desegregated school and those of the parents of pupils attending the segregated school (Table IV-8A) is rejected for both parents of black pupils and parents of white pupils. The difference between the attitudes toward school of parents of black pupils attending the desegregated school and those of parents of black pupils attending the segregated school was significant beyond the .001 level. The difference between the attitudes of the parents of desegregated and segregated white pupils was also significant beyond the .001 level. Parents of desegregated pupils, both black and white, were much more positive and less uncertain in their attitudes than were the parent of the two groups of segregated pupils. Though parents of black pupils attending the desegregated school were emphatically less negative in their attitudes than the parents of segregated black pupils were, parents of desegregated white pupils were slightly more negative in their attitudes than parents of segregated white pupils were.

Of parents of desegregated pupils, the enthusiasm of black parents for the school exceeded that of white parents



by a margin significant beyond the .01 level (Table IV-8B). On the other hand, there was no significant difference between the attitudes of the two groups of parents of pupils attending the segregated school (Table IV-8B). Both black and white parents saw the segregated school in practically the same terms.

It is also noteworthy that among parents of desegregated pupils there was no significant difference between the attitudes toward school of parents of fourth graders and those of parents of sixth graders (Table IV-8D). The enthusiasm of parents for the desegregated school is apparently constant from year to year. On the contrary, in the segregated school, parents of fourth graders differed from parents of sixth graders in their attitudes toward the school to an extent significant beyond the .01 level (Table IV-8D). Sixth grade parents were much more positive in their attitudes, less negative, but considerably less sure of their attitudes than parents of fourth graders were.

The data seem clearly to support the conclusion that parents, like their children, are more enthusiastic about the desegregated schools than about the segregated school.

Parents of Desegregated and Segregated Black Pupils.

Comparison of the attitudes toward school of black parents of desegregated pupils with those of black parents of segregated pupils (Table IV-8A) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 8a is rejected.

Black parents of children attending the desegregated school expressed stronger approval of the school than black parents of children attending the segregated school did (81.9% to 65.7%). The desegregated parents were also much less negative in their attitudes toward the school than their segregated peers were (8.6% to 16.2%). Finally, the desegregated parents were much more sure of their attitudes (9.6% uncertain to 18.1% uncertain).

Parents of Desegregated and Segregated White Pupils.

Comparison of the attitudes toward school of white parents of desegregated pupils with those of white parents of segregated pupils (Table IV-8A) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 8b is rejected.

White parents of pupils attending the desegregated school held more positive attitudes toward school than white parents of pupils attending the segregated school did (72.8% to 63.9%). The difference in the negative attitudes of the two groups

was slight but favored the segregated parents (14.6% to 16.8%). The big difference occurred in the certainty of the two groups' attitudes. There was far more certainty among the desegregated parents (10.5% uncertain to 21.6% uncertain).

Parents of Desegregated Black Pupils and Parents of Desegregated White Pupils. Comparison of the attitudes toward school of the parents of desegregated black pupils with those of the parents of desegregated white pupils (Table IV-8B) revealed a difference significant beyond the .01 level. Consequently, Hypothesis 8c is rejected. Within the clientele of the desegregated school, black parents expressed more favorable attitudes toward school than white parents did (81.9% to 72.8%). Black parents also expressed many fewer negative attitudes (8.6% to 16.8%). The slight difference in attitude certainty favored the black parents (9.6% uncertain to 10.5% uncertain).

Parents of Segregated Black Pupils and Parents of Segregated White Pupils. Comparison of the attitudes toward school of the parents of segregated black pupils with those of the parents of segregated white pupils (Table IV-8B) revealed no significant difference. Consequently, Hypothesis 8d is accepted.

Parents of Desegregated Fourth Graders and Parents of Segregated Fourth Graders. Comparison of the attitudes toward school of the parents of desegregated fourth grade pupils with those of the parents of segregated fourth grade pupils (Table IV-8C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 8e is rejected. Parents of desegregated fourth grade children expressed much greater approval of the school than parents of segregated fourth grade children did (76.8% to 61.2%). The former were also significantly less negative in their attitudes toward school (12.3% to 18.9%). Desegregated fourth grade parents were also much surer of their attitudes (10.9% uncertain to 20.9% uncertain).

Parents of Desegregated Sixth Graders and Parents of Segregated Sixth Graders. Comparison of the attitudes toward school of the parents of desegregated sixth grade pupils with those of the parents of segregated sixth grade pupils (Table IV-8C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 8f is rejected. The moderate difference in positive attitudes toward school favored the desegregated parents (77.3% to 71.0%). However, the slight difference in negative attitudes was favorable to the segregated sixth grade parents (11.3% to 13.5%). It was in the

certainty category that the chief difference emerged. The desegregated parents were much surer of their attitudes (9.3% uncertain to 17.7% uncertain).

Parents of Desegregated Fourth Graders and Parents of Desegregated Sixth Graders. Comparison of the attitudes toward school of the parents of desegregated fourth grade pupils with those of the parents of desegregated sixth grade pupils (Table IV-8D) revealed no significant difference. Consequently, Hypothesis 8g is accepted.

Parents of Segregated Fourth Graders and Parents of Segregated Sixth Graders. Comparison of the attitudes toward school of the parents of segregated fourth grade pupils with those of the parents of segregated sixth grade pupils (Table IV-8D) revealed a difference significant beyond the .01 level. Consequently, Hypothesis 8h is rejected. Sixth grade parents expressed more positive attitudes (71.0% to 61.2%). They were also less negative (11.3% to 18.0%). Finally, they were more certain of their attitudes, though the difference was modest (17.7% uncertainty to 20.9% uncertainty).



TABLE IV-8A

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF BLACK AND WHITE PARENTS OF  
DESEGREGATED ESEA TITLE I PUPILS WITH THOSE OF BLACK AND WHITE  
PARENTS OF SEGREGATED ESEA TITLE I PUPILS

Hypothesis	Parents of Desegregated Pupils						Parents of Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
8a Black Parents	334	81.9	35	8.6	39	9.6	406	65.7	100	16.2	112	18.1
Chi-Square = 31.95. df = 2. Significant beyond the .001 level.												
8b White Parents	334	72.8	77	16.8	48	10.5	338	63.9	77	14.6	114	21.6
Chi-Square = 22.06. df = 2. Significant beyond the .001 level.												

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by black parents of desegregated pupils was 334. White parents of segregated pupils expressed 338 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by black parents of desegregated pupils 81.9% were positive. Of the attitudes expressed by white parents of segregated pupils 63.9% were positive.



TABLE IV-8B

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF BLACK PARENTS OF DESEGREGATED AND SEGREGATED ESEA TITLE I PUPILS WITH THOSE OF WHITE PARENTS OF DESEGREGATED AND SEGREGATED ESEA TITLE I PUPILS

Hypothesis	Parents of Black Pupils						Parents of White Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
8c Parents of Desegregated Pupils	334	81.9	35	8.6	39	9.6	334	72.8	77	16.8	48	10.5
Chi-Square = 13.73. df = 2. Significant beyond the .01 level.												
8d Parents of Segregated Pupils	406	65.7	100	16.2	112	18.1	338	63.9	77	14.6	114	21.6
Chi-Square = 2.33. df = 2. Nonsignificant.												

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by parents of desegregated black pupils was 334.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by parents of desegregated black pupils 81.9% were positive.

TABLE IV-8C

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF PARENTS OF DESEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I PUPILS WITH THOSE OF PARENTS OF SEGREGATED FOURTH AND SIXTH GRADE ESEA TITLE I PUPILS

Hypothesis	Parents of Desegregated Pupils						Parents of Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
8e Parents of 4 <sup>th</sup> Grade Pupils	318	76.8	51	12.3	45	10.9	436	61.2	128	18.0	149	20.9
	Chi-Square = 30.15. df = 2. Significant beyond the .001 level.											
8f Parents of 6 <sup>th</sup> Grade Pupils	350	77.3	61	13.5	42	9.3	308	71.0	49	11.3	77	17.7
	Chi-Square = 13.88. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by parents of desegregated fourth grade pupils was 318. Parents of segregated sixth grade pupils expressed 308 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by parents of desegregated fourth grade pupils 76.8% were positive. Of the attitudes expressed by parents of segregated sixth grade pupils 71.0% were positive.

TABLE IV-8D

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF PARENTS OF DESEGREGATED AND SEGREGATED  
FOURTH GRADE ESEA TITLE I PUPILS WITH THOSE OF PARENTS OF DESEGREGATED AND  
SEGREGATED SIXTH GRADE ESEA TITLE I PUPILS

Hypothesis	Parents of Fourth Grade Pupils						Parents of Sixth Grade Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup> % <sup>b</sup>		No.		No.		No.		No.		No.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
8g Parents of Desegregated Pupils	318	76.8	51	12.3	45	10.9	350	77.3	61	13.5	42	9.3
Chi-Square = 0.78. df = 2. Nonsignificant.												
8h Parents of Segregated Pupils	436	61.2	128	18.0	149	10.9	308	71.0	49	11.3	77	17.7
Chi-Square = 13.13. df = 2. Significant beyond the .01 level.												

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by parents of desegregated fourth grade pupils was 318.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by parents of desegregated fourth grade pupils 76.8% were positive.

### Pupils' and Parents' Attitudes Toward School

The primary statistical hypothesis that the attitudes toward school of desegregated pupils and those of their parents would not be significantly more congruent than would the attitudes of segregated pupils and those of their parents (Table IV-9A) is accepted for both the black and the white pupil-parent combinations. The hypothesis is accepted because there was, indeed, no significant difference between the groups. All differed significantly from congruence. Both desegregated (Table IV-9A) and segregated (Table IV-9B) black pupils' attitudes toward school differed from those of their parents by a margin significant beyond the .001 level. The attitudes of desegregated white pupils differed from those of their parents to an extent significant beyond the .01 level, while the discrepancy between the attitudes of segregated white pupils and those of their parents was significant beyond the .001 level. Parents invariably expressed more favorable attitudes toward school, whether desegregated or segregated, than their children did.

Though pupils and parents differed in their attitudes toward school without exception, it is interesting that the the discrepancy between the attitudes of the desegregated

white pupils and those of their parents was least. The overall conclusion that seems to emerge from the data is that though the desegregated school environment evokes decidedly greater enthusiasm from both pupils and parents, there is a roughly constant gap between their attitudes, with the parents consistently surpassing their offspring in enthusiasm for school.

Desegregated Black Pupils and Their Parents. Comparison of the attitudes toward school of desegregated black pupils with those of their parents (Table IV-9A) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9a is rejected. The parents of desegregated black pupils expressed much stronger approval of school than their children did (81.9% to 66.5%). Parents were also markedly less negative in their attitudes (8.6% to 20.8%). Finally, parents were also somewhat more sure of their positive or negative attitudes toward school than their children were (9.6% uncertain to 12.7% uncertain).

Desegregated White Pupils and Their Parents. Comparison of the attitudes toward school of desegregated white pupils with those of their parents (Table IV-9A) revealed a difference significant beyond the .01 level. Consequently,



Hypothesis 9b is rejected. Though generally of lesser degree, the differences between desegregated white pupils and their parents paralleled those already noted between black desegregated pupils and their parents. The white parents were more positive in their attitudes toward school than their children were (72.8% to 64.1%). They were less negative toward school than their children were (16.8% to 21.4%). Finally, they were more certain of their attitudes toward school than their children were (10.5% uncertain to 14.4% uncertain).

Segregated Black Pupils and Their Parents. Comparison of the attitudes toward school of segregated black pupils with those of their parents (Table IV-9B) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9c is rejected. The parents of segregated black pupils were more positive in their attitudes toward school than their children were (65.7% to 58.7%). Further, the parents were emphatically less negative (16.2% to 30.1%). But the parents were more uncertain of their attitudes than their children were (18.1% uncertain to 11.1% uncertain).

Segregated White Pupils and Their Parents. Comparison of the attitudes toward school of segregated white pupils with those of their parents (Table IV-9B) revealed a difference



significant beyond the .001 level. Consequently, Hypothesis 9d is rejected. The parents of the segregated white pupils exceeded their children in their positive attitudes toward the school (63.9% to 48.5%). The children were more than twice as negative as their parents (29.5% to 14.6%). Finally, the groups were about equal in attitude uncertainty (pupils 22.0%, parents 21.6%).

Desegregated Fourth Grade Pupils and Their Parents.

Comparison of the attitudes toward school of desegregated fourth grade pupils with those of their parents (Table IV-9C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9e is rejected. The parents of desegregated fourth graders were more approving of school than their children were (76.8% to 62.9%). They were much less negative toward the school (12.3% to 21.2%). Finally, they expressed less uncertainty about their attitudes (10.9% to 15.9%).

Desegregated Sixth Grade Pupils and Their Parents.

Comparison of the attitudes toward school of desegregated sixth grade pupils with those of their parents (Table IV-9C) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9f is rejected. The parents of

desegregated sixth graders were more positive in their attitudes toward school than their children were (77.3% to 67.7%). They were greatly less negative in their attitudes (13.5% to 21.1%) and expressed more attitude certainty, though the difference was small (9.3% uncertain to 11.2% uncertain).

Segregated Fourth Grade Pupils and Their Parents.

Comparison of the attitudes toward school of segregated fourth grade pupils with those of their parents (Table IV-9D) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9g is rejected. Segregated fourth graders were less positive in their evaluation of the school than their parents were (51.8% to 61.2%). The pupils were much more negative than their parents were (29.8% to 18.0%), but the difference in certainty of attitudes was not large (18.4% uncertain to 20.9% uncertain).

Segregated Sixth Grade Pupils and Their Parents. Comparison of the attitudes toward school of segregated sixth grade pupils with those of their parents (Table IV-9D) revealed a difference significant beyond the .001 level. Consequently, Hypothesis 9h is rejected. The extent of the overall difference between the segregated sixth grade pupils and their parents was uniquely large. The parents were more

much more approving of the school (71.0% to 56.8%). The children were more than two-and-a-half times as negative as their parents in their school attitudes (29.9% to 11.3%). Thirdly, the pupils were more sure of their attitudes than their parents were (13.3% uncertain to 17.7% uncertain).

TABLE IV-9A

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF DESEGREGATED BLACK AND WHITE ESEA  
TITLE I PUPILS WITH THOSE OF THEIR PARENTS

Hypothesis	Desegregated Pupils						Parents of Desegregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
9a Blacks	551	66.5	172	20.8	105	12.7	334	81.9	35	8.6	39	9.6
	Chi-Square = 35.51. df = 2. Significant beyond the .001 level.											
9b Whites	604	64.1	202	21.4	136	14.4	334	72.8	77	16.8	48	10.5
	Chi-Square = 10.55. df = 2. Significant beyond the .01 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated black pupils was 551. Parents of desegregated black pupils expressed 334 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated black pupils 66.5% were positive. Of the attitudes expressed by parents of desegregated black pupils 81.9% were positive.

TABLE IV-9B

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF SEGREGATED BLACK AND WHITE ESEA  
TITLE I PUPILS WITH THOSE OF THEIR PARENTS

Hypothesis	Segregated Pupils						Parents of Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
9c Blacks	743	58.7	381	30.1	141	11.1	406	65.7	100	16.2	112	18.1
	Chi-Square = 49.91. df = 2. Significant beyond the .001 level.											
9d Whites	488	48.5	297	29.5	221	22.0	338	63.9	77	14.6	114	21.6
	Chi-Square = 47.15. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by segregated black pupils was 743. Parents of segregated black pupils expressed 406 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by segregated black pupils 58.7% were positive. Of the attitudes expressed by parents of segregated black pupils 65.7% were positive.

TABLE IV-9C

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF DESEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THOSE OF THEIR PARENTS

Hypothesis	Desegregated Pupils						Parents of Desegregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
9e Fourth Grade	564	62.9	190	21.2	143	15.9	318	76.8	51	12.3	45	10.9
	Chi-Square = 25.37. df = 2. Significant beyond the .001 level.											
9f Sixth Grade	591	67.7	184	21.1	98	11.2	350	77.3	61	13.5	42	9.3
	Chi-Square = 14.28. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by desegregated fourth grade pupils was 564. Parents of desegregated fourth grade pupils expressed 318 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by desegregated fourth grade pupils 62.9% were positive. Of the attitudes expressed by parents of desegregated fourth grade pupils 76.8% were positive.



TABLE IV-9D

COMPARISON OF THE ATTITUDES TOWARD SCHOOL OF SEGREGATED FOURTH AND SIXTH GRADE  
ESEA TITLE I PUPILS WITH THOSE OF THEIR PARENTS

Hypothesis	Segregated Pupils						Parents of Segregated Pupils					
	Positive		Negative		Uncertain		Positive		Negative		Uncertain	
	No. <sup>a</sup>	% <sup>b</sup>	No.	%	No.	%	No.	%	No.	%	No.	%
9g Fourth Grade	604	51.8	348	29.8	215	18.4	436	61.2	128	18.0	149	20.9
	Chi-Square = 33.08. df = 2. Significant beyond the .001 level.											
9h Sixth Grade	627	56.8	330	29.9	147	13.3	308	71.0	49	11.3	77	17.7
	Chi-Square = 58.23. df = 2. Significant beyond the .001 level.											

<sup>a</sup>Number of responses. For example, the number of positive attitudes toward school expressed by segregated fourth grade pupils was 604. Parents of segregated fourth grade pupils expressed 436 positive attitudes.

<sup>b</sup>Percent of total attitudes-toward-school responses. For example, of the attitudes expressed by segregated fourth grade pupils 51.8% were positive. Of the attitudes expressed by parents of segregated fourth grade pupils 61.2% were positive.

## CHAPTER V

### DISCUSSION OF FINDINGS, SUMMARY, AND RECOMMENDATIONS

#### I. INTRODUCTION

This study investigated the relationship between the racial mix, independent of social class mix, in three elementary schools---two desegregated and one segregated---in Vallejo, California, and the academic progress in arithmetic and reading, interracial friendships, and attitudes toward school of 176 ESEA Title I<sup>1</sup> black and white pupils in the fourth and sixth grades. Also of interest were the attitudes toward school of 88 of the parents of these pupils.

There are probably two respects in which this investigation may have been unique. First, no busing or community

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<sup>1</sup>These are educationally disadvantaged children as defined in Guidelines: Special Programs for Educationally Deprived Children (Elementary and Secondary Education Act of 1965/Title I), OE-35079. (Washington: U. S. Government Printing Office, 1965), pp. 21-23. See also the definition "ESEA Title I" in Chapter I of this dissertation.

furor was required to accomplish the desegregation studied; the racial mix met the criterion<sup>2</sup> for desegregated schools before the standard was adopted. Peaceful desegregation had been in effect for years when this study was undertaken, and the adoption of a measure of racial balance did not alter the atmosphere in the schools. Second, this research isolated the effect of racial mix by controlling the socioeconomic mix of the samples and populations as rigorously as possible.

The socioeconomic status of the samples was controlled by selecting only pupils classified by the school district as disadvantaged on the basis of criteria specified by the federal government.<sup>3</sup> The socioeconomic homogeneity of the populations was controlled by selecting schools which, on the basis of school district and census tract data, have predominantly lower lower to lower middle class patrons.<sup>4</sup>

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<sup>2</sup>Bureau of Intergroup Relations. California Laws and Policies Relating to Equal Opportunities in Education. (Sacramento: California State Department of Education, 1969), p. 3.

<sup>3</sup>Guidelines: Special Programs for Educationally Deprived Children, pp. 21-23.

<sup>4</sup>W. Lloyd Warner with Marchia Meeker and Kenneth Eels. Social Class in America: The Evaluation of Status. (New York: Harper Torchbooks, Harper & Row, Publishers, 1960), pp. 121-159. See also the definition "Social Class Mix" in Chapter I of this dissertation.

The criterion of academic progress was the difference between pre- and posttest raw scores on standardized achievement tests administered by the school district in October, 1971, and May, 1972. The data on pupil friendship patterns and attitudes toward school were obtained by the administration in individual interviews by ESEA Title I school aides of a questionnaire<sup>5</sup> designed by the investigator. The interviewers and interviewees were of the same race. Attitudes of the parents toward school were obtained by the same group of interviewers using a questionnaire<sup>6</sup> identical to the attitudes-toward-school portion of the pupils' questionnaire.

The findings of this study are substantially consonant with those reported in the review of the literature in Chapter II and suggest lines of inquiry which may advance our knowledge of the various effects of public school desegregation. In the following section, the findings are discussed under headings corresponding to the three facets of the problem to which this study was addressed: Academic Progress, Interracial Friendships, and Attitudes Toward School.

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<sup>5</sup>Appendix B.

<sup>6</sup>Appendix C.

## II. DISCUSSION OF FINDINGS

### Academic Progress

The research hypothesis that the academic progress of the desegregated black pupils would be significantly greater than that of the segregated black pupils was rejected for both arithmetic and reading (Table IV-1A). In arithmetic progress, the segregated black pupils significantly (beyond the .02 level) surpassed their desegregated counterparts. In reading progress there was no significant difference between the two groups.

The research hypothesis that the academic progress of the desegregated white pupils would be significantly greater than that of the segregated white pupils was rejected for both arithmetic and reading (Table IV-2A). There was no significant difference between the academic progress of the two groups in either arithmetic or reading.

The research hypothesis that desegregated black pupils would make significantly greater academic progress than segregated white pupils would was rejected for arithmetic and also for reading (Table IV-3A). In arithmetic progress, the segregated white pupils surpassed the record of the desegregated

black pupils by a margin which was significant beyond the .001 level. In reading, there was no significant difference between the two groups.

The research hypothesis that the academic progress of the segregated black pupils would be significantly less than that of segregated white pupils was accepted for both arithmetic and reading (Table IV-4A). In arithmetic, the segregated white pupils exceeded the progress of the segregated black pupils by a difference significant at the .05 level. In reading, the segregated white pupils surpassed the progress of their black peers by a difference significant beyond the .01 level.

We turn now to a consideration of the meaning of these findings regarding the academic progress of desegregated and segregated disadvantaged black and white pupils in socio-economically homogeneous schools. First, though, the extraordinarily strong performance of the segregated pupils, both black and white, in arithmetic requires comment. As noted in the preceding chapter, it is apparently the exceptional showing in arithmetic of the segregated fourth graders which accounts for the only significant difference between all desegregated and all segregated pupils in the academic area.



However, in studies in which significant differences in academic progress between desegregated and segregated elementary school pupils have been found, it is in arithmetic that the desegregated pupils have more often excelled.<sup>7</sup>

The present study permits only conjecture as to the possible cause of this discrepant finding. At one time an observer who is well acquainted with the schools concerned suggested that for years the segregated school has had a relatively strong instructional program in arithmetic in the early grades. However, this explanation was subsequently retracted. Despite the precautions taken to assure random sample selection, the sample of segregated fourth graders may have included a disproportionate number of pupils especially able in arithmetic. In any event, this researcher lacks the data to clarify this finding. It seems clear that by the time the pupils reach the sixth grade, any earlier difference between the arithmetic progress of the segregated pupils and that of their desegregated counterparts has disappeared.

Under the circumstances of this investigation, attending a black segregated school was not academically deleterious

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<sup>7</sup>Nancy H. St. John. School Desegregation: Outcomes for Children. (New York: John Wiley & Sons, 1975), p. 119.

for white pupils. Though whites were a minority of 29.3% in the segregated school, they significantly surpassed the black majority (56.4%) in academic progress in both arithmetic and reading. Finally, no significant difference---except in arithmetic at the fourth grade level, favorable to the segregated whites---was found between the academic progress of desegregated and segregated white pupils in either arithmetic or reading. These findings appear to be in agreement with Armor's conclusion that the academic achievement of white pupils in black segregated schools does not drop below that of the black pupils until the proportion black reaches about 65 percent or higher.<sup>8</sup>

This study developed no evidence that academic progress in either desegregated or segregated schools increases as grade level increases. Indeed, when any significant difference in academic progress was found between fourth and sixth graders, it invariably favored the former. The apparent absence of cumulative effect is seemingly consistent with the central finding of this investigation regarding the

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<sup>8</sup>David J. Armor. "School and Family Effects on Black and White Achievement: A Reexamination of the USOE Data," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), p. 197.

relationship between racial mix and academic progress. That finding is presented in the following paragraphs of this section.

Do disadvantaged black and white pupils who attend a racially desegregated but socioeconomically segregated elementary school make more academic progress than corresponding pupils who attend a racially and socioeconomically segregated elementary school? In short, does the racial mix of the desegregated school exert a beneficial effect upon the academic performance of disadvantaged pupils, independent of the social class mix? The answer of this investigation is that if racial mix exerts an independent effect, the effect is negligible. This conclusion is not exceptional. It is consonant with the finding of Wilson, whose study was conducted in a neighboring California community, that "Given similar social-class compositions, the racial balance of a school has slight bearing on the academic performance of students."<sup>9</sup> It is consonant, too, with the position of the Coleman Report that

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<sup>9</sup> Alan B. Wilson. "Educational Consequences of Segregation in a California Community," in U. S. Commission on Civil Rights, Racial Isolation in the Public Schools. II (Washington: U. S. Government Printing Office, 1967), p. 181.

. . . The higher achievement of all racial and ethnic groups in schools with greater proportions of white students is largely, perhaps wholly, related to effects associated with the student body's educational background and aspirations. This means that the apparent beneficial effect of a student body with a high proportion of white students comes not from racial composition per se, but from the better educational background and higher educational aspirations that are, on the average found among white students . . . <sup>10</sup>

Though the Coleman Report thus accorded predominant status to social class as a factor in academic achievement,<sup>11</sup> the Racial Isolation study, referring to Coleman data, ranked racial mix only moderately less significant than social class mix as a correlate of academic achievement for disadvantaged black pupils.<sup>12</sup> It was in part to reduce the apparent ambiguity concerning the independent effect of racial desegregation on the academic achievement of disadvantaged pupils that the present investigation was undertaken.

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<sup>10</sup>James S. Coleman and others. Equality of Educational Opportunity. I (Washington: U. S. Government Printing Office, 1966), p. 183.

<sup>11</sup>Thomas F. Pettigrew. Racially Separate Or Together? (New York: McGraw-Hill Book Company, 1971), p. 58.

<sup>12</sup>U. S. Commission on Civil Rights. Racial Isolation in the Public Schools. I (Washington: U. S. Government Printing Office, 1967), p. 91.

The conclusion that racial desegregation per se probably does not facilitate the academic performance of disadvantaged black pupils does not invalidate public school desegregation as an urgent policy objective. Indeed, it is ironic that public school desegregation has been confused with academic achievement. The proponents of public school desegregation after World War II and before the Brown decision did not assert that racial desegregation would assure academic benefits for disadvantaged black pupils. On the contrary, their arguments fell entirely in the affective domain.<sup>13</sup> It is only in the years since the Brown decision and notably in the Coleman study and its aftermath that the cognitive criterion has emerged as a challenge to proponents of integration.

It seems unfortunate that Coleman and his associates did not study achievement more thoroughly than they did in

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<sup>13</sup> Kenneth B. Clark. "Desegregation: An Appraisal of the Evidence," Journal of Social Issues. 9 (No. 4, 1953), pp. 1-76; Max Deutscher and Isidor Chein. "The Psychological Effects of Enforced Segregation: A Survey of Social Science Opinion," The Journal of Psychology. 26 (October, 1948), pp. 259-287; Kenneth B. Clark. Prejudice and Your Child. 2nd ed. (Boston: Beacon Press, 1963), pp. 85-94; Earl Warren. "Brown v. Board of Education," in Hubert H. Humphrey, ed., School Desegregation: Documents and Commentaries. (New York: Thomas Y. Crowell Company, 1964), p. 28.



the context of socioeconomic class rather than racial mix. If we assume that native intelligence, the ability to learn, is distributed statistically among the human family, there should be no relationship between academic achievement and race. On the other hand, wealth and the privileges and benefits associated with it obviously are not randomly distributed. Socioeconomic status varies widely and often arbitrarily and has been shown to be closely related to academic achievement in the public schools. This suggests that achieving socioeconomic class mix rather than racial mix per se should be the concern underlying school desegregation efforts.

It is the conviction of this researcher that the case for public school desegregation is legitimately rooted in the affective area, where its pioneer supporters and the Warren Court argued its merits. From this viewpoint, the really relevant findings of this investigation are to be found in the affective realm. These findings will be discussed in the sections which follow, concerning Interracial Friendships and Attitudes Toward School.



### Interracial Friendships

The research hypothesis that the desegregated pupils would name other-racial-group pupils as friends significantly more frequently than their segregated peers would was accepted for black pupils but rejected for white pupils (Table IV-5A). Desegregated black pupils chose white friends nearly two and two-thirds more frequently than segregated black pupils did. The difference between the two groups of black pupils was significant beyond the .001 level. Though the desegregated white pupils chose more than one-fifth more black friends than the segregated white pupils did, the difference between the two groups of white pupils fell short of significance.

The research hypothesis that the desegregated pupils' friendship patterns would conform to the racial mix of the school significantly more closely than those of their segregated peers would was rejected for both black and white pupils (Table IV-6A). In other words, neither the friendship choices of desegregated black pupils nor those of desegregated white pupils conformed significantly more closely to the racial mix of their school than the friendship choices of their segregated peers did to the racial mix of the segregated

school. For blacks, the discrepancy for both desegregated and segregated pupils was significant beyond the .001 level. For whites, the discrepancy for segregated pupils was significant beyond the .001 level, while for desegregated pupils the discrepancy was significant beyond the .05 level.

The data apparently support the assumption that racially desegregated pupils tend to form more interracial friendships than their segregated counterparts do. The tendency of desegregated black pupils to form friendships with white pupils spectacularly exceeded that of their segregated peers. Desegregated white pupils, too, formed more friendships with black pupils than segregated white pupils did. Furthermore, the desegregated white pupils' friendship choices came notably close to reflecting the racial/ethnic mix of their school, suggesting minimal bias in their friend selection. These characteristics of the social behavior of the desegregated pupils suggest that interracial tolerance and acceptance typified relations in the desegregated school to a substantially greater extent than in the segregated school. Since among authorities there seems to be "general agreement that interracial contact per se will not bring about

increased tolerance or acceptance,"<sup>14</sup> it seems likely that interracial relations in the desegregated schools were characterized by that "equal status" contact between blacks and whites that Allport<sup>15</sup> has indicated is a prerequisite for integration. Thus, the assumption that school desegregation may lead to an integrated school society and ultimately contribute, as its early proponents anticipated it would, to a more nearly democratic, integrated national society is encouraged by this investigation's findings.

#### Attitudes Toward School

The research hypothesis that the attitudes toward school of the desegregated pupils would be significantly more favorable than those of the segregated pupils was accepted for both black and white pupils (Table IV-7A). Both black and white desegregated pupils approved their school significantly (beyond the .001 level) more emphatically than their segregated peers did theirs. Moreover, the enthusiasm of

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<sup>14</sup>Martha W. Carithers. "School Desegregation and Racial Cleavage, 1954-1970: A Review of the Literature," The Journal of Social Issues. 26 (No. 4, 1970), p. 41.

<sup>15</sup>Gordon W. Allport. The Nature of Prejudice. (Garden City, New York: Doubleday Anchor Books, 1958), p. 267.

black pupils for the desegregated school did not differ significantly from that of the white pupils (Table IV-7B).

The research hypothesis that the attitudes toward school of the parents of the desegregated pupils would be significantly more favorable than those of the parents of the segregated pupils was accepted for the parents of both black and white pupils (Table IV-8A). Both black and white parents of desegregated pupils approved their children's school significantly (beyond the .001 level) more emphatically than the parents of the segregated pupils approved the segregated school. Interestingly, the enthusiasm of black parents of segregated pupils for their children's school did not differ significantly from that of white parents of segregated pupils (Table IV-8B).

The research hypothesis that the attitudes toward school of the parents of desegregated pupils would be significantly more congruent with those of their children than would those of the parents of segregated pupils was rejected for both black and white parents (Table IV-9A). The difference between the attitudes of black parents of desegregated pupils and those of their children was significant beyond the .001 level. Though the difference between them was significant

beyond the .01 level, desegregated white pupils and their parents were closest together in their attitudes toward school. The differences between the attitudes of both black and white parents of segregated school pupils and those of their children were significant beyond the .001 level (Table IV-9B). In summary, parents and pupils, without exception, differed significantly in their attitudes toward school, with the parents invariably showing greater enthusiasm.

The findings of this investigation support the assumption that when there is balance in the school's racial mix, pupils are likely to be happier about themselves, about each other, about the teacher, and about the school routine. In interpreting the evidence and relating it to the literature reviewed, it is important to consider that the desegregated pupils had enjoyed that status over an extended period of time and that these were neighborhood schools in which desegregation had been a natural process, not an event following community conflict.

Both pupils and parents expressed greater enthusiasm for the desegregated schools than for the segregated school. Black parents were significantly more approving in their attitudes toward the desegregated schools than white parents



were, though there was no significant difference between their children's appraisals. On the other hand, though black and white parents regarded the segregated school comparably, black pupils expressed much stronger approval of the segregated school than white pupils did.

The fact that black parents appraised the desegregated school even more favorably than the white parents did suggests that integration, rather than being tantamount to assimilation, is a process leading to appreciation of individual and cultural differences and encouraging and nurturing them. It seems doubtful that the black parents would have expressed such a high level of approval of the desegregated school if they felt that its atmosphere tended to denigrate blacks.

The finding that black and white parents regarded the segregated school comparably suggests that the white parents probably did not feel that the segregated environment discriminated against their children. In this connection it is interesting that though white parents and black parents appraised the segregated school alike, white segregated pupils regarded the segregated school much less favorably than black segregated pupils did. White segregated pupils apparently were more unhappy with their school than their parents were.



Though in every comparison a significant difference separated the attitudes of pupils toward school from the attitudes of their parents, the desegregated schools evoked much greater enthusiasm from both. The difference between the generations was consistent for all comparisons, but the discrepancy was quantitative rather than qualitative. In other words, though both pupils and parents expressed greater enthusiasm for the desegregated schools than for the segregated school, the parents' enthusiasm exceeded the children's. Finally, it is interesting that desegregated white pupils' attitudes came closest to matching those of their parents. Perhaps this phenomenon strengthened the morale of the desegregated white pupils, making them more secure and assured in their school social relationships and more open to the formation of interracial friendships.

The data of this study suggest that desegregated pupils and their parents like what is happening in their schools. Apparently "considerable cross-racial interaction and friendship" is occurring; in other words, the process of integration is at work.<sup>16</sup> As we move into the third century of our

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<sup>16</sup>David K. Cohen, Thomas F. Pettigrew, and Robert T. Riley. "Race and the Outcomes of Schooling," in Frederick Mosteller and Daniel P. Moynihan, eds., On Equality of Educational Opportunity. (New York: Random House, 1972), p. 359.

national experience, it is reassuring to consider that in desegregated schools integrative social forces are stirring that give promise of carrying over into the fragmented greater society of adult America.

### III. SUMMARY

This research discovered no significant relationship between the racial mix of the school, independent of social class mix, and pupils' academic progress. No consistent significant difference was found between the academic progress of pupils in the desegregated schools and that of pupils in the segregated school. This suggests that when desegregated pupils have exceeded the academic performance of segregated pupils, the social class mix of the school rather than its racial mix was probably the significant factor.

Balance in the racial mix of the school, independent of social class mix, apparently exerts a favorable effect upon the formation of interracial friendships. Pupils in the desegregated schools showed a significantly greater tendency to form interracial friendships than pupils in the segregated school did.

The data of this study suggest that balance in the racial mix of the school, independent of social class mix, has a positive effect upon the attitudes toward school of both pupils and parents. Both pupils and parents associated with the desegregated schools were significantly happier about their schools than their peers were about the segregated school.

This investigation implies strongly that if desegregation is to have maximal impact, it must include social class desegregation, not merely racial desegregation. It seems likely that if the pupils in the racially balanced schools had been representative of the community's socioeconomic class spectrum as well as of its racial spectrum, the findings of this study might have been materially affected. The literature supports the assumption that the desegregated pupils' academic progress would probably have been significantly greater than that of the segregated pupils. Further, the view seems justified that the affective impact of the desegregated schools might have been significantly enhanced. Socioeconomic balance, it seems obvious, is a crucial factor in the socialization of the disadvantaged child. Thus, the present findings imply that the focus of desegregation efforts should be upon achieving social class balance, not racial balance per se.

#### IV. RECOMMENDATIONS

This study has generated the following recommendations:

1. Future research should focus on the social-psychological concomitants of desegregation and endeavor to identify those elements which tend to assure progress from desegregation to integration.
2. The validity of desegregation as an educational policy objective should be judged by reference to its affective rather than its cognitive benefits.
3. Desegregation research should accord primary emphasis to investigating socioeconomic variables.
4. Research concerning the academic achievement of disadvantaged pupils should concentrate on the effects of socioeconomic class balance, rather than on racial balance per se, since authorities agree that racial balance has minimal, if any, impact.

## APPENDIXES





- (4) The kid I think would make the best student council president at this school is \_\_\_\_\_

first name

\_\_\_\_\_.  
last name

- (5) If I'd been chosen captain of a playground team at this school, and I was choosing members of my team, the first kid I'd choose would be \_\_\_\_\_

first name

\_\_\_\_\_.  
last name

- (6) The kid at this school I'd most like to be like is

\_\_\_\_\_

first name

\_\_\_\_\_

last name

- (7) The kid at this school that isn't my friend now, but I surely wish he (she) was is \_\_\_\_\_

first name

\_\_\_\_\_.  
last name

- (8) Some kids seem to have very few friends or no friends at all. When I think of kids like that at this school, I

think first of \_\_\_\_\_

first name

\_\_\_\_\_

last name

and second of \_\_\_\_\_

first name

\_\_\_\_\_

last name

(9) My five best friends at this school are:

_____ first name	_____ last name
_____ first name	_____ last name
_____ first name	_____ last name
_____ first name	_____ last name
_____ first name	_____ last name

(10) In choosing a friend, you might consider several of the following things important. Place an "X" ( X ) before each of the following things which you consider important in choosing a friend. Here goes! A friend should:

_____ Be nice-looking	_____ Be good at sports
_____ Need me for a friend	_____ Have folks who'd let me come and play at their house
_____ Wear clothes as good as mine	_____ Live in my part of town
_____ Like the same kids I do	_____ Be very popular
_____ Have a house as nice as mine	_____ Be someone my folks would let me visit at his (her) house
_____ Be as much like me as possible	

- (11) In choosing a friend, you might consider several of the following things not important. Place a check mark ( ☒ ) before each of the following things which you do not consider important in choosing a friend. Here goes!  
To me, it is not important that a friend:

- |  |  |
|--|--|
| <input type="checkbox"/> Be nice-looking                   | <input type="checkbox"/> Be good at sports   |
| <input type="checkbox"/> Need me for a<br>for a friend     | <input type="checkbox"/> Have folks who'd let<br>me come and play at<br>their house      |
| <input type="checkbox"/> Wear clothes as<br>good as mine   | <input type="checkbox"/> Live in my part of<br>town                                      |
| <input type="checkbox"/> Like the same kids<br>I do        | <input type="checkbox"/> Be very popular   |
| <input type="checkbox"/> Have a house as<br>nice as mine   | <input type="checkbox"/> Be someone my folks<br>would let me visit<br>at his (her) house |
| <input type="checkbox"/> Be as much like<br>me as possible |  |

## APPENDIX B

## PUPIL INTERVIEW SCHEDULE

Hi, I'm \_\_\_\_\_. We are carrying out a study to learn how children attending \_\_\_\_\_ feel about other kids at this school. May I ask you some questions concerning your feelings toward your fellow students?

I think you will find the questions interesting to answer. I will try to go through the questionnaire quickly, without spending too much time on any single question.

Feel free to answer exactly the way you feel, for neither your name nor any other method of identifying you will appear on the questionnaire. No one at school will ever know which are your answers. When completed, the questionnaire will go directly to a research worker for statistical tabulation.

Remember: This questionnaire concerns your feelings. There are no right or wrong answers. I will ask you most of the questions and will give you specific instructions and directions where needed.

To the interviewer: Though the interviewee will respond with names, this is merely the means of identifying the ethnic group membership of students names. The ethnic category of each pupil named is the information we must have reliably.

1. The kid at this school I'd most like to have visit my home, have dinner with us, and stay overnight is

\_\_\_\_\_.

1. ( ) Caucasian

3. ( ) Spanish Surname

2. ( ) Black

4. ( ) Oriental/Other

2. The best-looking kid in this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

3. The kid in this school who is most like me is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

4. The kid at this school that I have the most fun playing  
with is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

5. There's one kid at this school that---if he/she moved away  
---I'd miss the most. His/Her name is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

6. The kid in this school who is best at sports is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

7. If I'd been chosen leader of a playground team at this  
school, and I was choosing members of my team, the first

kid I'd choose would be \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

8. A kid in this school who likes the same kids I do is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

9. Most of the kids in this school who are my friends live near me.

1. ☐ Yes

1. ☐ No

10. The kid at this school I'd most like to be like is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

11. The kid in this school who most needs me for a friend is

\_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

12. The kid in this school who is liked by more kids than anyone else is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

13. The kid at this school that isn't my friend now, but I surely wish he/she was is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

14. Some kids seem to have very few or no friends at all. When I think of kids like that at this school, I think

first of \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other



15. Some of my friends in this school live far away from where I live.

1. ☐ Yes

2. ☐ No

16. The kid I think would make the best student council president at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

17. My very best friend at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

18. My second best friend at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

19. My third best friend at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

20. My fourth best friend at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

21. My fifth best friend at this school is \_\_\_\_\_.

1. ☐ Caucasian

3. ☐ Spanish Surname

2. ☐ Black

4. ☐ Oriental/Other

Now I'd like to ask you some different questions about how you feel about other kids in this school but also about how you feel about your teachers, your principal, the school itself, and yourself as a student in this school. As with the earlier questions, there are no right or wrong answers. We are interested in your feelings. Feel free to answer exactly the way you feel, for no one at school will ever know which are your answers.

22. Most of the kids in this school are friendly.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
23. Other kids can get more help from the teacher than I can.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
24. I have as good a chance of being elected to a student office as any other kid in the school has.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
25. My teacher wants me to learn all I can.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
26. In this school some kids are treated worse than others because of things they can't help.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
27. My teacher expects too much of me.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

28. I'm afraid of some of the kids in this school.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
29. If I could, I would like to go to a different school.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
30. In this school the more money a kid's folks have the better he's/she's treated.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
31. The principal and teachers in this school show lots of kindness in dealing with kids.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
32. Sometimes I am afraid of my teacher.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
33. I think this school is the best one I could go to.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

34. My teacher often acts as if she/he teaches only because she/he must to earn the money.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

35. My teacher is really my friend.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

36. My teacher uses interesting ways to teach things.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

37. Lunch time in our lunchroom is a happy, friendly time.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

38. The principal of this school is mean to some kids.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

39. My teacher likes me.

- 1. ( ) Yes
- 2. ( ) No
- 3. ( ) Not Sure

40. I think I might like to be a teacher myself some day.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
41. My teacher believes I can do good work in school.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
42. My teacher likes some kids better than others.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
43. My teacher tries hard to help me learn.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
44. I have a hard time understanding when my teacher explains new things.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

QUESTIONS FOR THE INTERVIEWER TO ANSWER:

45. Child's sex
- |             |               |
|-------------|---------------|
| 1. ( ) Male | 2. ( ) Female |
|-------------|---------------|
46. Child's ethnic group
- |                  |              |
|------------------|--------------|
| 1. ( ) Caucasian | 2. ( ) Black |
|------------------|--------------|
47. Child's grade in school
- |               |              |
|---------------|--------------|
| 1. ( ) Fourth | 2. ( ) Sixth |
|---------------|--------------|

48. Child's school

1. ( ) Farragut
2. ( ) Lincoln
3. ( ) Widenmann

49. (FOR OFFICE USE ONLY)

Child's Number \_\_\_\_\_

50. Child's 1971-72 Metropolitan Achievement pretest score

1. Reading \_\_\_\_\_
2. Math \_\_\_\_\_

51. Child's 1971-72 Metropolitan Achievement posttest score

1. Reading \_\_\_\_\_
2. Math \_\_\_\_\_

52. Parent's number \_\_\_\_\_



## APPENDIX C

## PARENT INTERVIEW SCHEDULE

Hello, I'm \_\_\_\_\_ of the school/ community office. We are carrying out a study to learn how parents of children attending the Lincoln, Farragut, and Widenmann schools feel about these schools. May I ask you some questions concerning your opinions of the school your child attends?

I think you will find the questions interesting to answer. I will try to go through the questionnaire quickly, without spending too much time on any single question.

Feel free to answer exactly the way you feel, for neither your name nor any other method of identifying you will appear on the questionnaire. No one at school will ever know which are your answers. When completed, the questionnaire will go directly to a research worker for statistical tabulation.

Remember: This is an attitude questionnaire. There are no right or wrong answers. I will ask you most of the questions and will give you specific instructions and directions where needed.

1. Most of the children in the school my child attends treat my child in a friendly manner.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
2. Other children can get more help from the teacher than my child can.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

3. My child has as good a chance of being elected to a student office as any other child in the school has.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
4. My child's teacher wants him/her to learn as much as he/she can.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
5. In this school some children are treated worse than others because of things they can't help.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
6. My child's teacher expects too much of him/her.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
7. My child is afraid of some of the children at this school.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
8. If I could send my child to a different school, I would.
  1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

9. In this school the more money a child's parents have the better he's/she's treated.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
10. The principal and teachers in this school show lots of kindness in dealing with the children.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
11. Sometimes my child is afraid of his/her teacher.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
12. I think this school is the best one my child could attend.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
13. My child's teacher often acts as if she/he teaches only because she/he must to earn the money.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
14. My child's teacher is really a friend to him/her.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

15. My child's teacher uses interesting ways to teach things.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
16. My child enjoys the lunch period in the school lunchroom.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
17. The principal of this school is mean to some children.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
18. My child's teacher really likes him/her.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
19. I have often wished I had become a teacher.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
20. My child's teacher believes he/she has the ability to do good work in school.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

21. My child's teacher likes some children better than others.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
22. My child's teacher tries hard to help him/her learn.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure
23. My child has a hard time understanding when his/her teacher explains new things.
1. ( ) Yes
  2. ( ) No
  3. ( ) Not Sure

Now a few questions for statistical purposes:

ANSWER ONLY IF YOU WISH.

24. What is your marital status?
1. ( ) Married
  2. ( ) Divorced
  3. ( ) Separated
  4. ( ) Widow
  5. ( ) Widower
25. What type of work does the head of this household do?  
(PROBE FOR ACTUAL JOB, NOT COMPANY NAME)

26. Which group does your total family income, before taxes, fall into?

1. ( ) \$ 0,000 - \$ 2,999
2. ( ) \$ 3,000 - \$ 4,999
3. ( ) \$ 5,000 - \$ 6,999
4. ( ) \$ 7,000 - \$ 9,999
5. ( ) \$10,000 - \$14,999
6. ( ) \$15,000 - \$14,999
7. ( ) \$25,000 - and over

27. Would you please tell me which age group you fall into?

- |              |                          |
|--------------|--------------------------|
| 1. ( ) 21-24 | 5. ( ) 60-64             |
| 2. ( ) 25-34 | 6. ( ) 65 and over       |
| 3. ( ) 35-44 | 7. ( ) No Answer/Refused |
| 4. ( ) 45-59 |                          |

28. What is the last grade of formal education that you completed?

1. ( ) Grade school or less
2. ( ) Some high school
3. ( ) High school graduate
4. ( ) Vocational, nigh, or other special school
5. ( ) Some college
6. ( ) College graduate
7. ( ) Post graduate
8. ( ) No answer

29. (BY OBSERVATION) Sex

- |             |               |
|-------------|---------------|
| 1. ( ) Male | 2. ( ) Female |
|-------------|---------------|

30. (BY OBSERVATION) Ethnic group

- |                  |              |
|------------------|--------------|
| 1. ( ) Caucasian | 2. ( ) Black |
|------------------|--------------|



31. (FOR OFFICE USE ONLY) Geographic Code

1. ( ) Farragut
2. ( ) Lincoln
3. ( ) Widenmann

32. (FOR OFFICE USE ONLY)

Parent's number \_\_\_\_\_

33. (FOR OFFICE USE ONLY)

Pupil's number \_\_\_\_\_

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## SELECTED BIBLIOGRAPHY

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